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OPEN LETTER TO THE CONTRIBUTORS AND READERS OF SOCIOMETRY

This JOURNAL enters its seventh year of existence. When we started it was like building a city with empty houses for a population to come. Would people move in? The right people, that is, sociometrists? It was a hazardous venture. But they moved in, sociologists, anthropologists, social psychologists, psychiatrists, clinical psychologists, economists; only a few among them were sociometrists.

We kept open house for seven years. It was like a spontaneity test, free for all to enter. How else could we have proceeded, we who believe in spontaneity, than to permit a free contest of many minds, a give and take, in the faith that sociometry will find its own shape and that the JOURNAL will discover its boundaries.

Well, it has come to pass, a new crop of social scientists is growing up—new people are moving into the city—this time thorough sociometrists. They know with me this is a science which will take a century to build.

I believe in the natural evolution of a science. A rigid policy seven years ago might have killed it in the bud. But now a new and vital problem has arisen: how to maintain the JOURNAL's wide breadth and universality and still give it direction, inner organization and specific scope. I always maintained that spontaneity is not only able to develop its flow, but also its own discipline. There is a time in spontaneity training when the period of fully free movement comes to a stop and when the director encourages the subject to develop controls. The time for sociometry and for this JOURNAL to find controls has come, to halt confusion wherever there is any, and to speak freely. But the quest for a clear policy came from outside, the contributors and readers of this JOURNAL. Had it come from me alone it might have appeared as imposed in an arbitrary manner. Instead the logic in the actual development of sociometric research made certain questions and certain answers imperative. It is a happy coincidence that they are in full accord with the principles and concepts which I have advocated and maintained in every one of my statements since the inception of this JOURNAL. Questions have been raised from many sides. What is sociometry? Is everything that the JOURNAL contains "sociometry"? What is the relationship of social measurement to sociometry? What is the relationship of sociometry to psychodrama? What is the *policy* of this JOURNAL?

These and many more questions have been raised, twenty contributions or so are contained in this symposium, from sociologists, anthropolo-

gists, social psychologists, educators, psychiatrists, and others. I have tried to give an answer to the most crucial comments and to formulate a policy which is as broad and natural as the situation in which sociometry is today.

I thank you for the generous support you have given the JOURNAL, for your valuable researches, and invite your future contributions in an ever widening effort to utilize the philosophy and methods of sociometry.

Very sincerely yours,

J. L. MORENO, *Chairman*
Executive Committee

INTRODUCTORY NOTE

The symposium which follows arose out of a difference of opinion in many quarters as to the subject matter included under the term sociometry. Professors Bain and Dodd have analyzed with admirable clarity the logic of several possible definitions. Others, including the editor, have added practical and theoretical considerations. Dr. Moreno has essayed the difficult task of summarizing and evaluating the various contributions. The results may be said to represent the state of opinion today regarding desirable boundaries for the field to which this journal is devoted.

In times of war and other crises there will always be some who are disposed to consider this type of subject matter as merely "lecturing on navigation while the ship goes down." We offer no apology on this score and contemplate no change in our policy. We know something about navigation today because some men were content to continue their study of it while their personal ships went down, instead of joining the hue and cry for short cuts to salvation whenever a storm occurred. If physicists had spent all of their time emoting about each earthquake and thunderstorm, the science of physics would not be what it is today. Physicists devoted themselves instead to serious study of the underlying processes of which the disasters of the day are manifestations. These processes in the social world are the concern of sociometry.

GEORGE A. LUNDBERG

SOCIOMETRY DELIMITED: ITS RELATION TO SOCIAL WORK, SOCIOLOGY, AND THE SOCIAL SCIENCES

STUART CARTER DODD

American University of Beirut

I. CONFUSION OVER "SOCIOMETRY"

There seems to be some confusion as to just what Sociometry is or is likely to become. The question has been asked as to what is the difference between a section on Sociometry and the existing section on social measurement. A conference was held last June to launch the Sociometric Institute and its program caused many to wonder whether sociometry was being developed towards social research or social action or both. The versatile interests of Dr. Moreno make some persons ask if he conceives sociometry as a cult or a science although he has at times emphatically stated that it is the latter. The journal *Sociometry* carries the subheading, "A Journal of Interpersonal Relations," but its recent editorial policy is so broad that some people wonder wherein its articles differ from those accepted by other sociological journals.

The present paper aims to state the place of Sociometry (a) within Sociology, (b) within the Social Sciences, (c) its relation to Social work, and (d) its relation to social action. The statement is from the point of view of one sociologist interested in systematics.

II. SYSTEMATIC DEFINITIONS OF SOCIOMETRY AND RELATED DISCIPLINES

In order to state clear differentiae between Sociometry and Sociology and related disciplines, preliminary definitions of a "person" and a "socius", of a "plurel" and a "group" are useful.

A person is a single human individual.

A socius is a person together with his interrelations of stimulus and response, active or potential, to other persons. A socius is Moreno's "social atom."¹

¹The "social atom" is a less accurate term as, in addition to denoting a structure composed of a nucleus, entity, and relations to peripheral entities, it connotes properties of protons, neutrons, electrons, etc., which do not apply to the socius. Also, in Sociometry each person in turn can be taken as the socius of the other persons, whereas in the physico-chemical atom each electron cannot in turn become the nucleus to the other electrons and protons. In the interests of the unity of science similar terms should be used in different sciences wherever the operational form of their designata are similar, but should not be used if as dissimilar as the physical atom and the socius.

A plurel is a category of persons, more than one in number, identified by at least one charactristic in common.

A group is a plurel of socii, i.e. a plurel of interrelated persons.

A more operational definition of "socius" and "group", which has been experimentally proven to distinguish between these and persons and plurels with high reliability, uses the interrelation matrix. To form this matrix, list the members of the group that is studied as column headings and again as row headings and record in each cell the relation of its row member to its column member.

	1 P	2 P	--	P P
1 P	11 I	12 I	--	1P I
2 P	21 I	22 I	--	2P I
--	--	--	--	--
P P	P1 I	P2 I	--	PP I

This matrix defines the group by specifying its members (P)² and their interrelations of one kind³ (I) between every pair of members. (The interrelations between each member and the group as a whole or any part of it may be specified in additional columns and rows.)

A socius comprises the entries of any one column and corresponding row in the matrix above, as these specify all of one person's interrelations (of the kinds, and among the persons recorded in the matrix, of course).⁴

If no cross-classifying of the members against each other is required in order to present their characteristics, whether singly or collectively, then

²If the members are persons, a first order group (or "grouplet") is specified; if the members are first order groups, a second order group is specified, etc. A second or high order group is conveniently denotable as a "grouping", and a mixture of a grouplet and a grouping might be christened a "groupage".

³This might be called a "monorelational" group. A "polyrelational" group may have n different kinds of interrelations between the members, requiring expanding each cell of the above matrix into a sagittal array composed of n cells. If the interrelations are dynamic ones, i.e. interactions, the cell entries will involve the time factor, IT^{-1} . If the interrelations are purely qualitative the I's have zero exponents to denote and deal with qualities.

⁴This tabular arrangements can represent any number of members, with any number of kinds of interrelations and amounts of each, for any number of dates or periods. It is thus far more comprehensive, more flexible, and more exact, though less easily visualized, than any diagram of a "social atom".

they are a simple plurel that is not a group. This cross-classifying operation is the crucial distinction between *interhuman* phenomena and other human phenomena.⁵

With the above terms as differentiae, the field of Sociology and the sub-field of Sociometry within it can be distinguished. Sociometry is the study of interhuman phenomena. It is the science of the human group. Its data are the behavior of people responding to people, i.e. interacting. Sociology is the study of collective human phenomena including the interhuman phenomena. It is the science of the human plurel, including the human group. Its data are the behavior of people responding to people and also to non-human stimulation.⁶

Psychology may be distinguished as the study of persons rather than of plurels, of individual rather than of collective behavior. Its subdivision of Social Psychology studies, typically, the behavior of persons when responding to persons. This merges into Sociometry when the behavior of persons as observed is both stimulus *and* response to other persons as it then is the two way interaction which defines the grouplet.

General Sociology, which seems increasingly identifiable with Social Science (in the singular), studies whatever is general to all classes of social phenomena, while the Social Sciences (in the plural) and the Special Sociologies specialize on particular subclasses of social phenomena. This is similar to Biology being the study of what is common to all the more specialized biological sciences each of which studies a subclass of biological phenomena. Wherever the study of one of these subclasses of social phenomena has been highly developed through historical accidents of earlier public interest and availability of data, it is called a Social Science; wherever it is less developed and not yet recognized as having independent status, it is studied by sociologists and called a Special Sociology. Thus Sociology, general and special, has two distinct meanings—as the *overall* social science

⁵In dimensional analysis, a population to the first power, P^1 , represents a single plurel, while a population to the second power, P^2 , obtained as the product of cross-classifying its members against each other, represents a group. The rules in Chapter 7 and in Appendix II of the author's *Dimensions of Society* (Macmillan, 1942) constitute a more exact operational definition of "group", "plurel", and "socius".

⁶While these distinctions seem broadly true they are not perfectly so. Thus sociometrists have so far studied grouplets rather than groupings, interpersonal relations rather than intergroup relations. Also it should be noted that many sociologists want to restrict sociology to the *interhuman*, i.e. to the field of sociometry as stated above. But the fact that many sociologists produce and sociological journals publish studies of non-group plurels as in populational and ecological studies, makes the above definition seem the truer one for the actual field of current Sociology.

and as the *residual* social science from which new independent social sciences are in process of differentiating out.

The various Social Sciences and Special Sociologies are differentiated on either of two bases of classification, namely, *institutions* or *communities*. The institutional basis, when an institution is conceived as one of the ten or so major segments of culture, yields the following institutions and their corresponding sciences:

Economic	Economics
Political	Political Science
Educational	Education
Familial	Sociology of Family
Religious	Sociology of Religion
Recreational	Sociology of Recreation
Health	Sociology of Health
Welfare	Sociology of Welfare
Artistic	Sociology of Art
Scientific	Sociology of Science

The community basis, when a community is conceived as a synthesis of institutions in a geographic region, yields the following subclasses of social science:

Preliterate communities	Cultural Anthropology
Sparse communities	Rural Sociology
Dense communities	Urban Sociology

In addition to the above field of Sociometry, the more inclusive field of general Sociology and the still more inclusive field of the Social Sciences, there are interstitial fields, both extra-social and inter-social. The extra-social interstitial fields that combine the social and the non-social, such as Human Ecology and Population, might be called "semi-social" sciences. For Ecology is partly a specialty under Sociology and partly under Geography and Biology. Similarly the semi-social science of Population is partly a sociological and partly a biological science.

The inter-social interstitial fields combine two or more social sciences such as in the following examples:

Economics and Political Science	in Public Finance
Education and General Sociology	in Educational Sociology
Economics and Sociology of the Family	in Home Economics
Political Science and Social Psychology, etc.	in Criminology
Political Science and Sociology of Welfare	in Public Welfare
Political Science and Sociology of Health	in Public Health

These hybrid sciences might be called "inter-social sciences," or perhaps "social co-sciences" might be a happier label. For scientists in these double

fields are usually spoken of as "social scientists" and not as "sociologists" (unless one of the coupled fields is a Special Sociology).

The adjective "social" should etymologically denote "pertaining to socii" but in actual use today its meaning has been blurred till it actually denotes "pertaining to plurels," i.e. pertaining to people (in the plural) whether interacting as socii or not. As "plurel" and its subclass "group" were defined above, "social" is more a synonym for the adjective "plurelic" than for its included class "groupal". This answers the question as to the difference between sociometry and social measurement. That is "social measurement" includes measurement of any plurelic phenomena, i.e. anything pertaining to human beings in the plural; while "sociometry" is the more restricted measurement of groupal phenomena, i.e. any *interhuman* relations.

A social technology is the deductive application of principles induced by the pure science in order to control social phenomena. Thus a School of Business applies economic principles, teaching economic science mixed with art or practice. A School of Public Administration teaches Political Science and its arts. Schools of Education and of Religion apply the principles of these institutions towards training leaders and specialists in them.

Social Work is chiefly the technology of the Special Sociology of the Welfare institution. It is the organized effort to reduce extreme subnormality in any of the other institutions whether among the criminals, the poor, the illiterate, the illegitimate, the sick, the crippled, the demented, etc. To the extent that Schools of Social Work study more than practical work in researching for principles of welfare, Social Work is becoming the Social Science of Welfare.

The application of Sociometry to improve interhuman relations might be called "Sociatry". Sociatry would be the application of scientific sociometric principles as means to ethical or trans-scientific ends. Just as the term "Psychiatry" uses the Greek roots meaning healing of the individual mind, so sociatry (pronounced *so si'atry*) means healing of socii, or inter-related persons. Sociatry would denote applied Sociometry. This terminology helps to solve the problem of confusing Sociometry as a pure science with its applications by propaganda, education, organization, or otherwise to improve interhuman relations in any way that people may desire their improvement.

III. SEPARATION OF SOCIOMETRY AND SOCIATRY

The tendencies which have been observed towards making a cult of Sociometry by seeing in it a panacea for many social ills can be legitimately

developed as Sociatry, whereas their development under Sociometry would confuse social research with social action. Each should stand on its own feet. Neither should be burdened by any mistakes made in the other nor coast upon any prestige gained by the other.

A corollary of this separation is that the Sociometric Institute and the journal of Sociometry should concern themselves with research only, and let a Sociatric Institute and journal of Sociatry be organized to develop the application of sociometric findings to evaluated programs of social action. The Sociometric and Sociatric agencies might be closely related to their mutual advantage. They might have adjacent offices, interlocking directorates, common financial backing, joint conferences, or other forms of cooperation. For sociometric research needs the life situations for exploratory observing and experimental designing which sociatric programs might supply. Conversely, sociatric programs need the findings of sociometric research and the training of sociometrists. But the people interested in each may be different and their distinction is desirable.

But in official journal and institute conference or association, a separate title and organization would prevent confusion between the science and the art, between the more inductive approach of investigation and the more deductive approach of technology, between social research and social action.

SOCIOMETRY AND SOCIAL MEASUREMENT*

READ BAIN

Miami University, Oxford, Ohio

A scientific term denotes descriptive and relational generalizations of sensory experiences "taken" to be identical, or logical inferences therefrom, made by the methods of natural science.¹ The language of science is always abstract and even somewhat "fictional", or at least partial, since scientific terms describe only *certain aspects* of delimited sensory experience and ignore all other aspects. To be useful, the scientific term must be *accepted* by scientists. This means accepting the conventions of selection, both as to exclusion and inclusion, and also the methods by which the generalizations are made. When such consensus exists, the term's *form* is immaterial: it may be expressed in words, letters, numbers, or graphs. However, if it is not verbal, it must be approximately translatable into words since only explicit or implicit words can communicate its *meaning*, i.e., the operations and referents which it symbolizes. A "good" scientific term is simple, precise, denotative, widely accepted, and clearly understood by those who use it.

There is much terminological confusion in the social sciences. If there is less in the physical and biological sciences, it is mainly because these sciences have been doing simple, precise, denotative, operational work for at least two hundred years. They have thus created sizable vocabularies which satisfy the criteria stated above. However, their terminological problems are not all solved; historically, they have been as badly confused as social sciences now are. Social science scarcely merits the term "natural" at present. Many social and most physical and biological scientists still believe that social science is not and never can become a natural science. The belief that it can is scarcely older than men now living and most of the research done on this assumption is very recent. However, a rapidly increasing percentage of graduate students in sociology now accept this point of view and it is making headway in the other social sciences. Even some physical and biological scientists are now beginning to admit the

*Prepared for the cancelled meeting of the American Sociological Society which was to have met at Cleveland, Ohio, Dec. 29-31, 1942.

¹"Science" and its derivatives mean natural science in this paper. Normative and methodological sciences require a somewhat different treatment. For the significance of "taken", see John Dewey, *The Quest for Certainty*, 172-174, 178-180, 197-198, New York, 1929.

possibility. Recent discoveries and the consequent modifications of theories in their own fields make them much less certain than they used to be about the "exactness" and finality of their own disciplines.

Science, like most all social systems, is largely an unconscious growth. Its terms usually are adopted for convenience to express more or less ill-defined ideas. As knowledge becomes more explicit and exact, and thus more simple and scientific, these ancient "first approximation" terms tend to become connotative rather than denotative; they are covered by a fuzzy growth of outworn meanings and implications. Hence, there is constant need for the redefinition of scientific terms, especially those which express large general ideas; we must put the heady wine of new knowledge into old verbal bottles. Sometimes it becomes necessary to invent new terms but more often we perform a drastic definitional operation or make an extreme semantic exegesis. Perhaps because of our limited verbal ingenuity, we have constructed most of our more generalized scientific terms from Greek and Latin roots. Too often we have crossed the ox and the ass and have produced linguistic bastards; frequently, the roots are poorly chosen; more often, the scientific idea is vaguely conceived by its namer and later development makes the term inappropriate if not completely misleading.

"Sociology" is an excellent or a terrible example. As the science has developed, it has come to deal more and more with the behavior of groups and less and less with the activities of the socius. Social psychology specializes on the interpersonal relations of the socius and therefore should be called "sociology", or perhaps "personology" since the role-taking aspect of the socius is increasingly emphasized. If a good Greek term were desired, "prosopology" might serve. In 1924, taking his cue from "societal" which had been popularized by Sumner and Keller, C. M. Case proposed "societology" for sociology and "sociology" for social psychology or collective psychology.² This would leave sociology without a name unless we use societology which is also a Greco-Latin inelegance and has gained little currency during the last twenty years. "Groupology" might do but it is also etymologically inelegant though "groupal" is appearing somewhat frequently in the literature. "Coenology" has possibilities. It is a pure Greek term and suggests that sociology deals with what is common to all the social sciences as well as with all elements common to communal life.³ When the residual

²C. M. Case, *Outlines of Introductory Sociology*, p. xxxvi, New York, 1924. "... It (sociology) probably *should* be, and more than probably will *not* be, known as societology". I have not been able to find any earlier use of *societology*.

³*Koinos*, common; *koinates*, a community, sharing, partnership, fellowship; *koinonia*, a community. This latter word suggests "coenoniology" or "coenonology" both of which are almost as lacking in euphony as "societology"; therefore I have preferred "coenology". It is etymologically pure and suggests "group".

sciences now generally included under the term "sociology" are fully developed, as Dodd suggests, sociology will be related to the other social sciences much as general biology is related to the specialized botanic and zoologic sciences. Thus, Dodd's elegant analysis⁴ is consistent with what is actually occurring.

However logically appealing such discussion may be, it is safe to predict that we shall continue to use sociology and make it mean "whatever sociologists study". Coenology, societology, and even groupology are etymologically, logically, and denotatively better terms but they have small chance of adoption. Social psychology, for the same reasons, might better be called sociology, personology, or prosopology but this also is not likely to happen. All the natural sciences ending in *-logy* should end in *-nomy* since the modern conception of the nature of nature and natural laws has displaced (or is displacing) the Platonic idea of the mystical Logos. We should have geonomy, bionomy, botanomy, zoonomy, economy, politiconomy, coenonomy, etc., but we probably shall never get them. That we have astronomy instead of astrology is more or less a historical accident. Nor is it likely that we ever shall rid ourselves of such obvious misnomers as "statistics" and "mathematics".

In general, the older the terms, the more out of focus they become. Hence, we must not be too much concerned with the etymology of scientific terms; we must let their current meanings derive from the operations they symbolize and redefine them when the old meanings no longer agree with current usage. Scientific terms are not different from other words in this respect. The "true" meaning of any word is the consensus it conveys. When this is small and varied, the term is connotative, slangy, figurative, poetic, or common sense; it may produce many disputes and misunderstandings but it is otherwise harmless; it makes pleasant and sometimes profitable work for critics, preachers, politicians, philosophers, poets, and other verbal gymnasts.

With scientific terms, the exact opposite situation exists: there must be great consensus and the words must be precise and unexceptional in meaning. In science, "a rose by any other name does not smell as sweet". It is closer to the truth to say "another name for a scientific term, *smells*". There is some evidence that the name of a child, or his nick-name, or baby-talk name, may markedly affect his later personality development. There may be sound sociology in the old saying, "Give a dog a bad name and hang him." Many a teacher has failed in one school because of "student opinion"

⁴S. C. Dodd, "Sociometry Delimited", elsewhere in this issue.

and then has been very successful in another position where he fortunately was given a "better name". Politicians, criminals, and movie stars know the advantages of a "good moniker". The terminology of science is of the utmost importance and is worthy of the best efforts of the best brains but its significance does not derive from its etymological, historical, logical, or linguistic character. Too many good brains have wasted their powers on these matters and are still doing so. The importance of scientific terms is their denotative, consensual convenience. The common usage of a term, its *meaning* to its users, is the final court of appeal. Failure to recognize this simple fact causes much of the confusion over the delimitation of scientific fields and concepts and the consequent lack of accurate communication within and between the various sciences. As the sciences become more exact and more able to use mathematics, the most powerful tool for accurate analysis and communication man thus far has invented, the need for more exact terminology becomes greater. International metrological organizations are founded to define the terms and to prescribe the operations for the determination of the units for all sciences which aspire to universality. These definitions are always operational and are usually quantitative. Those who are familiar with the technological revolution following World War I will not be surprised that there were over twenty-five industrial standardization organizations founded throughout the world from 1917 to about 1937.⁵

If there is considerable consensus in the use of a scientific term, scientists should not use it in a different sense or use another term in its stead. To do so introduces anarchic confusion into the conceptual scheme of the science and debases the current coin of accurate communication. If there is no consensus, and especially if the term has become blurred by the penumbral shadows of time, it is proper to clarify it if this is possible or to invent a new term as a last resort. One of the great virtues of Dodd's *Dimensions of Society* is that it provides a systematic, parsimonious means of expressing all quantitative social concepts while preserving the central core of meaning which they have accumulated throughout the years. Such meanings as can be denoted by S-notation are unequivocal; all the shadowy verbalistic connotations are sheared away; the logical denotative meanings are left intact and are concisely and precisely expressed. This should prove a great boon for accurate scientific communication. By the rigorous logical manipulation which S-theory makes possible, the fuzzy inutility of many current connotative pseudo-scientific terms may be revealed.⁶

⁵Walter A. Shewhart, *Statistical Method from the Viewpoint of Quality Control*, 4-5, Dept. of Agri. Graduate School, Washington, D. C., 1939.

⁶Those who think Dodd's work is too meticulous should acquaint themselves with

In the light of the foregoing analysis, Moreno's use of "sociometry" appears questionable. If, as seems likely, sociology and social psychology continue to denote what sociologists and social psychologists *do*, then "sociometry" is a proper and meaningful synonym for "social measurement". Hence, *Sociometry* should be called a "Journal of Social Measurement". If it wishes to limit itself to the measurement of interpersonal relations, its proper name would be *Sociopsychometry*. It has not so limited itself in actual matter of fact and it would be most unfortunate for it to do so. There is no logical or practical justification for using "sociometry" to mean *only* the kind of measurements described in *Who Shall Survive?*⁷ There are many other ways of measuring social data, whether they be conceived as "societal" or "interpersonal". The same reasoning applies to the work of the Sociometric Institute. Unless the Institute and the journal define sociometry so as to include *all* possible ways of quantifying and measuring social data and relations, unless they accept unequivocally the theoretical and methodological implications of the proposition that social science is natural science, which means *all* theory and methods capable of empirical test by the class of operations other natural scientists use, both the journal and the Institute are likely to assume a cultish character which will destroy their usefulness for science and ultimately for therapy and other practical applications of social science. Moreno doubtless recognizes this as clearly as anyone. The fact that he developed the methods used in *Who Shall Survive?* primarily for therapy does not blind him to the fact that they also are, or may become, extremely useful scientific techniques; he also very soon discovered that they have intergroupal as well as interpersonal, scientific as well as therapeutic and other practical applications and implications. Hence, his whole point of view and practice are consistent with the more inclusive concept of sociometry here advocated. No man is more conscious than Moreno of the necessity for a sound scientific basis for successful therapy. He also realizes clearly that

the history of metrology. It is no simple matter to find and fix the basic units of measurement in the physical sciences. See the various volumes of the *Travaux et Mémoires du Bureau International des Poids et Mesures* and the *Dictionary of Applied Physics*, vol. 3, ed. R. T. Glazebrook, London, 1922-23. The taxonomic problems in the biological sciences from Linné to the present are also a fascinating and edifying story. The publications of the Linnean Society are interesting and rewarding.

For comments on negative criticism of Dodd's work, see Henry Ozanne, *Amer. J. Sociol.*, 604-608, March, 1943, and Read Bain, "Remarks on the Bell-Parsons Reviews of Dodd", *Amer. Sociol. Review*, 214-216, April 1943.

⁷J. L. Moreno, *Who Shall Survive?* Nervous and Mental Disease Publishing Co., Washington, D. C., 1934.

his own work is as much (or perhaps more) intergroupal as interpersonal. Hence, he should be the first to advise changing "interpersonal relations" to "social measurement" in the title of *Sociometry*. He also will doubtless see to it that the Sociometric Institute does not confine its activities to group-membership choices, spontaneity training, and psychodramatic techniques. I think that all three of these techniques are very important contributions for theory, therapy, and research, as I have indicated elsewhere,⁸ but it would be a fatal mistake to limit the Institute to them.

While I agree in substance with Dodd's paper, "Sociometry Delimited", I do not believe it is sound policy to make such a clean-cut separation of theory and practice, of science and its application, as Dodd seems to suggest. The Sociometric Institute could very well model itself after the Rockefeller Institute which does both basic research and education—and also medical engineering. Call the practical application of social science "sociatry" if you choose, or social engineering, or social therapy, or even social reform, but I think it is folly to try to keep all things "pure" and "separated" in an impure world. *Sociometry* should publish articles dealing with therapy and other practical applications of social science, and proposals for such, as well as "purely" scientific papers. All sciences have developed largely through efforts to solve practical problems; the result of such efforts has been a powerful stimulus and source of data for "pure" science. I have discussed this reciprocal relation between science and practice at greater length elsewhere.⁹ The fact that sociology is now beginning to achieve some status as a "respectable" science is due largely to the fact that it is beginning to make contributions to the solution of practical problems such as parole and marital success. It will do sociology no good for *Sociometry* and the Sociometric Institute to confine themselves too closely to "pure" scientific work. I am sure both Dodd and Moreno would agree with this point of view. On the other hand, we must agree with Dodd that if the Institute confines its activities entirely to the kind of work reported in *Who Shall Survive?* it will limit and possibly destroy its usefulness by taking on the character of a cultish organization.

Both space and competence prevent more than a passing reference to social measurement. I have dealt primarily with the general terminology of science and of sociology in particular. I have tried to show that the use of sociometry in the limited sense of Moreno's research and therapy would add to the confusion of our general terminology and would tend to reduce

⁸Read Bain, "Letter on the Founding of the Sociometric Institute", *Sociometry*, May 1942, pp. xxxvi-xl.

⁹Read Bain, "Sociology and the Other Sciences", *Sci. Mo.*, Nov. 1941, 444-453.

the Moreno-"sociometry" to the status of a cult; that sociometry is and probably will remain a generic term to describe *all* measurements of societal and interpersonal data.

If "measurement is the determination of the magnitude of anything in terms of a suitable unit",¹⁰ it is obvious that there is little measurement in social science at present which is very similar to measurement as understood in the physical sciences. On the other hand, and despite Chapin's view that the mere *counting* of passive and active units is not measurement,¹¹ a strict usage of the above definition would indicate that the counting of homogeneous units, or units "taken" as identical, of a certain class is measurement. Certainly it is the indispensable first step and basis of all measurement, however, defined. It may be granted that *scientific* measurement implies the use of some standard unit, carefully defined and *constructed*, which shall have universal validity for the type of data to which it is applicable. This implies a calibrated scale. Dodd has clearly set forth the criteria for a valid, reliable, calibrated social scale¹² and some have been constructed which satisfy many of these criteria. Those who think Dodd's discussion is "unduly complicated, abstract, and meticulous" should read the proceedings, procedures, and history of metrology.

While summarizing "measures" of enumerations (and samples) such as averages, rates, percentages, distributions and their "measures", may not be "scalar" measurements, I think there is little logical basis for refusing to call them measurements. At any rate, they are so regarded in most sciences and are of inestimable scientific utility. The counting and subsequent manipulation of scalar units is logically no different from the counting of any other type of unit. Certainly there can be no dispute that the quantification of data is the necessary prerequisite to *measuring* them even in Chapin's esoteric sense. When we lay a ruler on a line, we really are assigning numbers to "equal" portions of the line. The *measurement* then consists of *counting* these units. Whenever items are *counted* they are treated as equal units and so may be said to be *measured*. Ascertaining rates of occurrence per numerical unit of homogeneous universes makes possible the comparison of the data. This is also the purpose of *measuring* by a standardized scale. The rate-units are "equal and interchangeable" in the sense that grams, centimeters, and seconds are. "Measuring" the number of stars means "counting" them, even though this must be done by sampling.

¹⁰Encyclopedia Britannica, 1940, 15:134.

¹¹F. S. Chapin, "Measurement in Sociology", *Amer. J. Sociol.*, Jan. 1935, 476-480.

¹²S. C. Dodd, *Dimensions of Society*, 157-160, New York, 1942.

In any event, it is safe to say that "measurement" of social data will continue for a long time to be synonymous with quantifying and counting and the mathematical manipulation of the enumerations. It is probable that many types of social data can be quantified for which it would be difficult if not impossible to construct a calibrated scale that would meet Dodd's criteria. Since complete enumeration of most social data is impossible, statistical sampling methods are likely to continue to be the most valuable and powerful mathematical tools of the social scientist. Even a "complete population census" is technically merely a sample.¹³ This is probably true of most data with which social sciences deal. The same thing may be said of the data of physical and biological science. If "science is a method of basing beliefs on the best available evidence",¹⁴ it is safe to say that quantification, measurement, and statistical analysis are destined to play an ever increasing role in the development of the social sciences into exact natural sciences. From this point of view, the founding of *Sociometry* and the Sociometric Institute may be regarded in the future as a landmark in the history of science. They may become for the social sciences what the Royal Society has been for the physical and biological sciences. If man can learn to manage his cultural environment by creating and applying scientific social knowledge as well as he can manage his physical and biological environments by means of science, the outlook for the human race will be much brighter than it is today. Social measurement is the golden key that may unlock the iron door of the future, because without measurement no control-science is possible.

¹³W. Edwards Deming and Frederick F. Stephan, "On the Interpretation of Censuses as Samples", *J. Amer. Statist. Assn.*, March 1941, 45-49.

¹⁴M. R. Cohen, "Scientific Method", *Ency. Social Sciences*, 10:390, New York, 1933.

DISCUSSION OF SOCIOMETRY

DWIGHT SANDERSON

Cornell University

A word of introduction may be in order as to how I became involved in the discussion of this topic. When the Program Committee of the American Sociological Society arranged the program for the 1942 session it followed the suggestions of the Executive Committee to reduce the number of sections, and provided for a section on Measurement in Sociology. It was understood that this was to include Sociometry and in the program arranged by the chairman, Dr. C. Horace Hamilton, most of the papers might have been included under the definition of Sociometry as given in the papers under discussion. Unfortunately, in listing the titles of the section in the April, 1942 *American Sociological Review*, the title of this section was given simply as "Measurement" and no mention was made of Sociometry. Accordingly in May a petition was received from 25 members, as required by the constitution, to establish a section on Sociometry, signatures to which had been obtained and were forwarded by Dr. Moreno. These included a considerable number of leading members of the society. It seemed, therefore, only fair to grant this request and we asked Dr. Lundberg to be chairman of the section and suggested to him that he arrange a program which would bring out the differences between Sociometry and Sociological Measurement, as I felt that many members were probably as confused about the matter as I was.

As a result, Dr. Moreno has asked me to take part in the discussion of these papers. I hesitate to do so because I have not followed the growth of Moreno's Sociometry very closely. On the other hand, I feel that probably I represented the average run of American sociologists in this respect. I have, accordingly, refreshed my memory of Moreno's "Who Shall Survive?" which I read when it was published and have looked through the five volumes of *Sociometry* to determine just what it is conceived to include in the minds of its editors.

In general I am in agreement with Bain's analysis of the etymology of the terms involved and particularly with his statement: "The true meaning of any word is the consensus it conveys." I would agree with him that Moreno's use of the word Sociometry is questionable; that there is no reason for confining it to only the type of measurements invented by him in "Who Shall Survive?"; and that the subtitle of *Sociometry* should be changed to "Social Measurement" if it is to be given a wider connotation.

On the other hand, I doubt the wisdom of mixing therapeutic methods and theories with the methods of social measurement and agree with Dodd on this point. Otherwise I fear that Sociometry may tend to become a cult, as Bain suggests. It is true that science cannot function if we try to maintain any sharp line between pure and applied science, but both these papers seem to miss what seems to me to be the essential difference between social science and social technology. As I see it¹ any social technology must involve the application of many sciences, not only social but physical and biological. When we come to formulate a program for dealing with any "social problem" we have to deal with it as a whole and not in terms of the point of view or findings of any one science. The problems of human relations are conditioned by the environment and the whole situation must be considered in programs for their improvement. On the other hand, science advances by a specialization of labor in the development of tools for discovering generalization concerning certain specific aspects of the total reality. Art and technology attempt to envisage the whole, but it is difficult to conceive an all-inclusive field of knowledge. It is for this reason that I am skeptical of the logical practicability of a "Science of Human Relations" or that we can have a *science* of "Applied Anthropology."²

For this reason I would qualify Bain's tentative prophecy that "the founding of *Sociometry* and the Sociometric Institute may be regarded in the future as a landmark in the history of science." This will be true only in so far as Sociometry becomes equivalent to methods of social measurement and does not become mixed up with various therapeutic methods and philosophical social theories.

I am unable to agree with Dodd's definitions of plurel and group. If a plurel is a number of persons "identified by at least one characteristic in common," then are a number of red-headed men a plurel? Nor does it seem to me his definition of group is satisfactory, although there seems to be no agreement as to this tenuous term. This clearly brings out the need for some rigorous work in attempting agreement on some of our basic sociological concepts.³

I do not feel competent to discuss the merits of Dodd's S-notation matrix method of definition or his whole S-notation Theory, I can see its advantages if it could gradually obtain general adoption, but I fear that

¹See my *Rural Sociology and Rural Social Organization*, New York, John Wiley & Sons, 1942, pp. 10-19, particularly pp. 18-19.

²See my statement in "Sociology A Means to Democracy" in the February 1943 *American Sociological Review*.

³See my remarks on this, *ibid.*

this is as far distant as have similar suggestions concerning nomenclature in biology.

I am unable to follow Dodd's distinction between Sociology and Sociometry, in which he makes Sociology the more inclusive and considers Sociometry as a "sub-field." Certainly if I understand Mereno correctly he would take exactly the opposite point of view. Thus in his first definition of Sociometry⁴ he says that it "deals with the mathematical study of the psychological properties of populations, the experimental technique of and the results obtained by application of quantitative methods," and he quotes this with approval six years later.⁵ This is broad enough to include all social measurement, whether in sociology, social psychology, psychology or any social science. It is clear that Moreno conceives Sociometry as a new method of laying bare the structure of human society, for he says: "Sociometric procedures try to lay bare the fundamental structure within a society by disclosing affinities, attraction and repulsions, operating between persons and persons and between persons and objects,"⁶ and in this article he very clearly states (p. 211) the various approaches of Sociometry, including research, diagnostic procedure, and therapeutic and political procedures, all three of which must be synthesized into the "complete sociometric procedure." Furthermore his first broad definition has been later qualified by a special doctrine on "inter-personal relations." This is brought out very clearly in his statement—"Sociometry is primarily a theory of society in which inter-personal relations are given the dominant role—a role which they have always had, implicitly, since the origin of the social sciences."⁷ He then goes on to explain more specifically what he means by inter-personal relations. "A sociometric test is first of all an action *and behavior test* of individuals in a group."

It is too large a task for me to attempt an analysis of Moreno's doctrine of inter-personal relations as the basis of group structure and of the whole structure of society, but it seems to me that this is the heart of his social philosophy. He conceives all human collectivities to be based on his concepts of the "tele" and the "social atom,"⁸ which are peculiar to what Chapin

⁴J. L. Moreno, "Who Shall Survive?", Washington, D. C., 1934, p. 10.

⁵J. L. Moreno, "Time as a Quantitative Index of Inter-personal Relations," *Sociometry*, III:62, January, 1940.

⁶J. L. Moreno, "Sociometry in Relation to Other Social Sciences," *Sociometry*, I:206, July-Oct., 1937.

⁷J. L. Moreno, "Sociometry in Action", *Sociometry*, V:299, August, 1942.

⁸"The first decisive step in the development of sociometry was the disclosure of the actual organization of a group." *Ibid.*, p. 211.

calls "informal friendship constellations," whereas this is by no means true and there are many groups in which the "inter-personal" relations, in his sense, play a minor role.⁹ In general Moreno seems to be quite oblivious of the work of many leading sociologists, and to be attempting to build up a complete method of societal analysis and reconstruction based on his own hypotheses.¹⁰

That this narrower use of the term Sociometry, in contrast with the meaning which Bain and Dodd would give it, is Moreno's concept of it as shown by his lists of "The Range of Locale of Sociometric Researches," and "Sociometric Researches in Progress,"¹¹ which are chiefly confined to those with his point of view and which include only a fraction of the researches in social measurement as defined by the papers under discussion.

That both of these points of view have been accepted by the editors of the journal *Sociometry*, which may be used as the best representation of what may be termed the Sociometric School, is shown by an analysis of the topics considered in the papers published in its first five volumes. Of these 50% deal with Sociometry according to Moreno, including 21% on tele patterns, social atoms, etc., 20% on sociometric therapy (two-thirds of which is on psychodramatic therapy), and 9% on sociometric theory; 20% deal with measurement in social psychology (broadly interpreted) and 5% with other socio-psychological topics; 6% with sociological theory; 4%, personality; 6% mathematics and statistics; and 9% other miscellaneous topics from visceral motivation to population statistics.

As a result of this inadequate resume of the two papers and of Dr. Moreno's writings there seem to arise several definite issues:

1. Is there need for a new department of science to be known as "Social Measurement" or "Sociopsychometry" as Bain suggests? We already

⁹Concerning various measurements of social interaction within the social group see F. Stuart Chapin, "Trends in Sociometrics and Critique", *Sociometry*, III:252, July, 1940. This is an excellent summary.

¹⁰Moreno's basic hypothesis is stated by him: "The discovery that human society has an actual, dynamic, central structure underlying and determining all its peripheral and formal groupings may one day be considered as the cornerstone of all social science." ("Foundations of Sociometry, an Introduction," *Sociometry*, IV:15). This seems to be concurred in by Lundberg who says in his Editorial (p. 10 of the same number). "That subject (sociometry) is the basic, underlying structure of all social groups, regardless of the variety of cultural superstructures, and the aspects thereof, that may become the basis of specialized study. Sociometry is concerned with the objective description of this common core of all social phenomena." That there is such "a common core of all social phenomena" seems to me to be an hypothesis which demands more evidence than has yet been offered.

¹¹*Sociometry*, V:xli-xxvii, May, 1942.

have econometric and psychometric societies. Is anything to be gained by trying to include all social measurement in one discipline? Would it not have even less cohesiveness than the American Statistical Association because it would cover a broader territory?

2. Is Sociometry to be an all-inclusive science of society, as seems contemplated by Moreno, or is it to be a substitute for Sociology?

3. Is Sociometry to include technological methods (*sociatry* of Dodd) and social theories, as well as the generalizations established by empirical scientific procedures?

It would seem that sociologists in particular need to obtain some consensus on these issues before they proceed to recognize Sociometry as either a subdivision of their science or as a super-science of society.

In this discussion I trust that I will not be misinterpreted as in any way opposing the development of social measurement, as I am all for it, although I do not think I would go quite as far as Dodd and Lundberg in giving it an all-inclusive role. Nor do I wish to seem unappreciative of the very important contributions which Dr. Moreno has made in giving us new insights and techniques for studying inter-personal relationships. His contributions in this field have been invaluable. We need more such seminal minds, even if we cannot always agree with all of their doctrines.

And, lastly, I trust that if I have seemed over-serious and too staid in my discussion, friend Bain will take me to task by showing me that "Man is the Measure."¹²

¹²Cf. *Sociometry*, V:421-425.

DISCUSSION OF SOCIOMETRY

GEORGE A. LUNDBERG

Bennington College

There is no doubt Dodd and Bain have delineated certain strictly logical aspects of the classification of the subject matter of the social sciences. I would only call attention to certain additional considerations which today govern the existing classifications. If the existing academic departmental organization could be reconstructed reasonably, it seems clear that psychology, sociology, and anthropology would be a single department. At the same time, psychology would be trimmed of that part of its present content which is pure physiology, anthropology would turn over to anatomy that which is today called "physical" anthropology, and sociology would further divest itself of various extraneous discursions into philosophy, ethics, and social work. When this had been done I should not be greatly concerned which word was used to designate the new single department, especially as between sociology and anthropology. Psychology will become an increasingly embarrassing term as the "psyche," the "soul" and the "mind" continue to recede as objects of scientific and even of philosophical study. This is in no way a reflection upon many of the problems which today occupy most psychologists, or upon the tremendous importance of their contribution. The scientific study of symbols and language will, I hope, presently supplant the historic concern with mentalistic categories. In the meantime, I am merely suggesting that as all the social sciences develop, it will be increasingly difficult to distinguish psychology from sociology and anthropology. Anthropology as a word is too broad in its etymological connotations to designate the distinctive subject matter which is the concern of psychology, anthropology, and sociology at present. The word sociology does come nearer to designating that content. But I would not be greatly concerned over what word was used to designate the study of man as a social organism behaving in the world of his origin with his thinkings and knowings included.

In the same way, I am not greatly concerned with the question of what word we shall tentatively or finally use to designate a more objective and precise method of describing, generalizing, and communicating our observations of human social phenomena. There is no doubt that to the general public the word "sociometric" means today "having to do with the measurement of social phenomena." That is how the terms biometric, psychometric, and econometric are used. For the time being at least, I would be quite content to accept this practice. *Sociometry* would then stand in the same

general relationship to sociology, anthropology, psychology, psychiatry, and political science as *Biometrika* stands to biology, *Psychometrika* to psychology, and *Econometrica* to economics. This would mean that *Sociometry* in the future as in the past would not restrict its publications entirely to quantitative reports of concrete studies but would continue to print also theoretical papers regarding analytical, logical, terminological, and semantic problems which are basic to quantitative and statistical as well as to other aspects of the scientific quest. This practice ought not to obscure what is desirable from the point of view of a sociologist interested in systematics. I fully agree with Moreno and Dodd on a strict delimitation of the field of sociometry. However, this aim which the journal *Sociometry* had from its inception can be attained only gradually.

A PERSONAL EVALUATION OF SOCIOMETRY

GARDNER MURPHY

College of the City of New York

It is entirely natural and human, I think, that the term "sociometry" should be used both to designate a technical quantitative method and to define a broad area of research and conceptualization. Final and categorical definitions are always broken by the sheer vital growth which underlies them, as a hardy plant forces open my wooden shutters in the spring. I have no quarrel with the present terminology of Moreno's system.

I say "system" because the careful reader of *Who Shall Survive* and of *Sociometry* will note the intimate relation between three systematic endeavors: spontaneity training, spontaneity testing, and sociometry, and will notice the relations of all three to the basic theory of spontaneity, the conception of the ego, and the technical uses of the psychodrama. The vitality of the system lies largely in the vitality of the individual leader; things are held in cohesion by his personality. The methods and even the problems will, in time, drift apart and undergo reclassification, as is always the case in any type of endeavor, scientific or artistic.

There is not, for me, the slightest question that sociometry—the term now being used in the widest possible sense to include all of Dr. Moreno's work—is one of the great vitalizing forces in contemporary social science. At a period when many scholars were tired of old ideas and quite frankly more interested in technical polishing of their instruments, the Moreno approach bludgeoned its way into even the drowsiest library and classroom, and compelled attention. There was no doubt whatever that the practical utilization of this group of methods made a vast human difference in the specific settings, such as Hudson, in which it was used, and that it deeply inspired those who were seeking to comprehend the basis of human compatibilities and incompatibilities, as well as those who sought for the emotional basis of education, the core which makes the individual wish to learn, to grow, and to find himself.

It would be ridiculous to attempt a tabloid summary of all that Dr. Moreno has done. It is sufficient to point out that schools, hospitals, welfare and penal institutions, old settled communities and new resettlement groups, have all offered useful fields for the application of the sociometric technique, and that behind it all, recognition has constantly grown that therapy ultimately depends on breaking the shell of hardened habits, finding within each individual what is really capable of growth. The familiar con-

ceptions of conditioning and reconditioning, or of reward and punishment, have been in many places replaced by a conception of finding, as one finds in a tree, which of the tissue systems are capable of growth, and making the most of them. I shall never forget how, on returning from Hudson after a visit, W. H. Kilpatrick said to me, "If Moreno is as much as half right, then Thorndike is more than half wrong." It was one of those perfect phrases, so complete in its connotations as well as denotations, that it is the best I can do by way of summarizing an outlook—which is not, of course, exclusively the property of Moreno, but of which he has been one of the most eloquent advocates.

The one thing I regret about sociometry is its occasional pretense at all-inclusiveness, its pretense that it contains within itself everything that is good in psychoanalysis, individual psychology, or the projective methods. It is only one method. It is, however, a *great* method, which has already exerted a profoundly salutary effect; and with all my heart I wish it a long and flourishing life.

DISCUSSION OF PAPERS ON SOCIOMETRY

E. W. BURGESS

University of Chicago

The major conclusions by Stuart C. Dodd and Read Bain appear to be sound, although exceptions might be taken to a few of their points. The chief lack, however, in both papers is the failure to include explicit discussion of two important subjects; first, the distinction between sociometry and statistics and second, a comparison of sociometry with econometry and psychometry.

If statistics deal with measurement, why is there any necessity for a separate field of sociometry which also is concerned with measurement? The superficial answer might be that statistics is concerned with measurement in general and that sociometry is confined to social phenomena. But there would be no point in creating a new discipline unless there were something in the nature of social phenomena that required the devising of special methods of measurement. If society is conceived as an aggregate of individual organisms, as in population studies, there would be no need of sociometry. But if we take as our subject-matter the person and groups of persons, then the analysis of interpersonal relations and the devising of instruments for their measurement become important. In *Who Shall Survive* Moreno developed an ingenious system of plotting and measuring interpersonal relations.

Sociometry is to be further differentiated from statistics in the fact that the former deals with all types of measurement significant for understanding human behavior and not exclusively with those requiring statistical formulae. Thus the charting of relationships¹ of an adolescent girl to persons in her social world is measurement and permits comparison with similar charts for other girls. True, this charting makes possible simple quantification which is also important. But the charting itself represents measurement which, as in this case, may be more significant than the later quantification.

Most important of all, sociometry places the emphasis upon the social analysis of interpersonal relations which must be made before significant statistical operations are feasible. At present in sociology we unfortunately have a great gap between social analysis and statistics. For the most part analyses of social processes are not oriented toward measurement, and

¹See Jessie R. Runner, "Social Distance in Adolescent Relationships," *American Journal of Sociology*, 43, 428-39, November, 1937.

statistical studies deal with aggregates of atomistic items about individuals² and not with relationships and processes within groups of interacting persons. The role of sociometry is to bridge this gulf. It must place emphasis first on the analysis of interpersonal relations and social processes, second, on some mode of representing them in measurable form, and third, upon the using or devising of appropriate techniques statistical or otherwise for the deriving of generalizations susceptible to checking by other investigators.

Finally a word should be said about sociometry in relation to econometry or psychometry (the terms more frequently in use are econometrics and psychometrics). As in sociometry the stress, while on measurement, is upon measurement significant for the creation of a natural science. This means that an analysis must be made of the essential nature of the structure and dynamics of the economic order in econometrics, of the mind in psychometrics and of society in sociometry; that instruments for measurement appropriate in each field must then be devised, and that mathematical or other methods adequate to the problems be worked out. The final objective in all these disciplines is the establishing of significant scientific generalizations which will ultimately constitute a coherent system.

²See Ernest R. Mowrer, *Family Disorganization*, University of Chicago Press, 1927. Pp. 130-32 footnotes.

SOCIOMETRY AND SOCIOLOGY

FLORIAN ZNANIECKI

University of Illinois, Urbana, Illinois

Sociometry, viewed historically and comparatively, initiates a very important stage in the evolution of social thought. Whatever the possibilities of its practical application—which I do not feel competent to discuss—it opens the way for an objective scientific treatment of phenomena which for thousands of years have attracted the attention of thinkers about social reality but have been more often evaluated than investigated.

These phenomena are the individually initiated variants underlying cultural patterns. Every social system is culturally patterned: a state, a church, a trade union, a college fraternity; the social role of judge, physician, factory worker, or university student; the relation between husband and wife, mother and child, host and guest, shopkeeper and customer.

The cultural pattern of a social system includes certain axiological standards which participants in the system are supposed to apply in evaluating each other and the system as a whole, as well as certain norms by which they are expected to be guided in their actions. In so far as they accept and conform with these standards and norms, the social system manifests a dynamic inner order which may be termed "axio-normative."¹

We find various kinds of axionormative order in every domain of culture. Thus, systems of knowledge are ordered in accordance with logical patterns, which include standards of selection and definition of significant and reliable data as well as norms by which active thinking about these data is guided. In religion, language, art, technology, economics, the cultural patterns are many and diverse, but each of them includes some standards of valuation and norms of action.

Social sciences, like all sciences of culture, started by investigating patterns of axionormative order and this still remains their primary task, just as the study of hereditary patterns of living organisms is still the primary task of biological sciences. But the standards and norms of cultural patterns are mere ideational constructs without real influence unless applied by human individuals in their attitudes and actions. And the attitudes and actions of individuals participating in a culturally patterned sys-

¹This term is perhaps awkward, because composed of a Greek and a Latin root, just like "sociology" and "sociometry," but it suggests precisely this combination of standardized valuations and normatively regulated action which is an essential character of every cultural pattern.

tem differ and change, even when these individuals tend to conform with the standards and norms of the pattern, still more so when they deviate from them. No scientific theory of a social system can be adequate which does not investigate the functioning of this system in active human experience, and no investigation of the functioning of a system can leave out of consideration these unpattered, spontaneous variants.

Unfortunately, social scientists took their task too easily at first. They found some social standards and norms explicitly and abstractly formulated in verbal or written rules and believed that all they had to do was to systematize these rules. For instance, political scientists and lawyers originally thought (and sometimes still think) that legal formulae contain all that is essential to know about the inner order of the state. Until recently, most ethnological studies of marriage were based almost exclusively on explicit rules for selecting partners, for wedding ceremonials, for descent, for inheritance, etc., without even pretending to investigate how married individuals feel and act toward each other during the many years of their relationship.

Although modern sociology has already passed beyond this stage and now considers processes of functioning of social systems as well as processes of interaction between them as an essential part of its task, the development of a methodologically satisfactory approach to those individual variants of which every social process is composed has proved very difficult. Psychological methods, thought adequate for the study of variations in experience and behavior in intellectual, aesthetic, religious, technical fields, are insufficient in the social field. For, whereas in those other fields the objects of human experience and activity are passive, in the social field the object of every experience and activity is himself an experiencing agent and every social fact involves mutual evaluative attitudes and mutual actions.

A few sociologists, such as Tarde, Fouillée, Cooley, Simmel, and von Wiese, have recognized this insufficiency, but their efforts to introduce an alternative method were not successful. The investigation of unpattered variants within and between social systems is, therefore, still mostly left to the psychology of human individuals—whether each individual be considered a concrete entity, as in “case studies,” or an abstract unit of a uniform category, as in statistical mass studies.

It is strange that none of the sociologists mentioned above developed any logically consistent and meaningful quantitative method. Of course, an axionormative order, as culturally patterned, can be scientifically studied only by methods of qualitative analysis; even individual variants, viewed with reference to this order, are originally given as qualitatively differen-

tiated. But since they are unpatterned, it is manifestly impossible to deal scientifically with their illimited differentiation. Though their qualitative character has been and still can be taken into consideration by means of the concept of *type*, this concept—unlike that of a logical class—is not an exact intellectual instrument. Excessive development of typology runs contrary to the trend of scientific exactness. Sooner or later, quantitative gradation must be substituted for qualitative variation.

Sociometry seems to have solved this age-old methodical difficulty in a more satisfactory way than any other attempts to introduce quantitative methods into social science; for, in Moreno's pregnant terms, it does not sacrifice the "socius" to the "metrum," empirical content to formal technique. It is thus capable of indefinite development, not only in technical precision but in scope and scientific significance. Moreno's anticipations of its future possibilities, stated in his "Foundations of Sociometry,"² may appear visionary, if compared with its actual achievements up to this time, but the vision can well become a scientific ideal successfully and progressively approached. This would require, however, a close alliance with sociology, and sociometric investigation has hitherto seemed to shun such an alliance. The following remarks are intended to promote it.

Sociometry is often called a "new science." Though the term does not matter, its logical implications do. The sociometric method of defining and solving problems is new, but all the problems investigated by this method are sociological problems, integrally connected with the problems upon which sociology has been working for nearly a hundred years with moderate, but steadily increasing success. By isolating the particular data which sociometry is investigating from those which sociology has been investigating and by treating them as a separate and independent field of research, sociometric investigators lose the benefit of past sociological achievements as well as failures, and make future collaboration difficult.

This tendency is rooted in the assumption that the "actual, dynamic structure" of human society, as manifested in the "spontaneous" interrelations between the individuals who compose it is genetically prior to what is termed its "formal groupings" or "stereotyped institutions," and can be investigated independently of the latter. Whereas, as a matter of fact, since all human individuals are culturally conditioned from the moment of their birth, much of their participation in culturally patterned "groupings" and "institutions" is as "spontaneous" as their interrelations outside of this cultural framework; and since all "groupings" and "institutions" must

²Note *Sociometry*, IV: 15-35, February, 1941.

be not only initiated but dynamically maintained by human individuals, none of them can be "formal" except in so far as its participants behave as if they wanted it to be "formal."

Two examples may serve to show the inadequacy of the method which abstracts inter-personal attitudes from the cultural standards and norms which regulate social systems.³

Look at the heterosexual love relation. Moreno uses this relation⁴ to illustrate the importance of studying inter-personal relations *in statu nascendi*. I agree perfectly with his thesis; indeed, I have for many years insisted that the analysis of social systems *in statu nascendi*, when possible, gives the best basis for understanding their structure. But I cannot agree that a social system, once organized, loses its original dynamic character and becomes a "stereotyped end product" parallel to the "cultural conserve stage in a work of art."⁵

A comparative analysis of erotic relations shows: first, that there is a common cultural pattern of these relations going far back in human history, though diversified in various societies and followed by only a minority of couples in any particular society; secondly, that this pattern is quite different from the ancient pattern of the marriage relation which the vast majority of couples have followed and still are following; thirdly, that during the last century and a half, especially among the intellectual classes of Western societies, the erotic pattern has been progressively influencing traditionally patterned marriage relations and modifying them considerably. This cultural pattern of the erotic relation includes definite standards of mutual evaluative experience and definite norms of altruistic conduct which each partner explicitly or implicitly recognizes as his or her "duties," but these very standards and norms—so long as actually followed—prevent the relation from becoming "stereotyped."

If we study the genesis of the erotic relation and its later functioning, we find that the phase when the relation is fully organized and accepted as lasting by both, far from being an "anti-climax," is more expansive, harmonious and satisfactory to the partners than the formative phase. Furthermore, in comparing couples who are swayed by unpatterned emotional im-

³I choose these examples because I have been studying them thoroughly and systematically for some time.

⁴*Op. cit.* p. 22.

⁵Even a work of art, though it does represent the end product of the artist's creative activity, when viewed as a cultural value and not a mere material thing, becomes the center of new experiences, attitudes, and activities of many people, and thus a dynamic nucleus of spreading, changing waves of new cultural forces.

pulses with those who follow the cultural pattern of love, at least as transmitted in literature and art, if not through direct tradition and imitation of models, we find that the love relation of the latter is incomparably richer in personal values and much more dynamic and full of new experiences than that of the former.

Of course, every inter-individual relation has a limited duration; but I could quote a number of cases from reliable published records and from my own observations of culturally patterned love relations which lasted more than twenty years, some outside, some within the institutional framework of marriage. For the majority of couples, indeed, marriage still remains "the grave of love," as it was at the time of the troubadours—but not because the love relation becomes "stereotyped," simply because it ceases to exist: a relation of a very different logical class, with different standards and norms, is formed instead.

A sociometric study of love relations would indeed be highly instructive, but only when preceded or accompanied by an adequate knowledge of their inner axionormative order. It could show how the process of mutual selection of partners from among others to whom they may have originally been attracted gradually results in an exclusive relationship under the influence of the cultural tradition that "true love" should be exclusive while it lasts. It could measure the effective power of the cultural standards and norms of a love relation by determining the degree to which this relation remains a closed system of attitudes and actions, notwithstanding the fact that the "social atom" of each partner includes a multiplicity of attitudes and actions which involve many other individuals of the same or the opposite sex. It could find how the actual dynamics of such systems, measured in terms of conformity with the axionormative order, differ quantitatively from couple to couple and change in the course of time; and it could correlate these variations and changes with those of the "social atoms" of the partners. Finally, it could trace and measure social forces leading to a final disintegration of the systems.

My second example is even more instructive. It was suggested by Francis McLennan Vreeland's study, "Social Relations in a College Fraternity."⁶ The author finds that "friendship preferences of members of . . . college fraternities . . . reveal social structures in marked contrast to the

⁶*Sociometry*, V: 151-162, May, 1942. By the author's own admission, this monograph is a technically imperfect example of sociometric research. But the present criticism is concerned not with technical imperfections in solving the problems it formulates, but with its failure to notice that these problems are relevant to others, more basic, which are not even formulated.

mutuality ideals of the group. Stars tend to be drawn from the upper classmen and isolates from the entering members, thus indicating the existence of factors which interfere with attraction based upon personality traits alone. There is a large and persistent skew in the preferences of members of the different college classes for each other, the larger proportion of choices going to the upperclassmen or to the members of one's own class" (151). And he concludes that "there is a persistence of both stars and isolates within the college fraternity, in spite of the policy of the organization to provide equal acceptance for all. This represents another kind of conflict between institutional and social-psychological factors" (162).

The author apparently has not investigated scientifically the complex axionormative order of an American college community in general or of the fraternal group in particular. He may have relied on his personal familiarity with this order, combined perhaps with abstractly formulated ideologies and constitutional rules. Such sources are utterly inadequate. It took fifty investigators, working from four months to a year, to reconstruct only a part of the axionormative structure of the student community of the University of Illinois, and it took me another year to synthesize the results of their monographic studies. Seven monographs were devoted exclusively to the cultural patterns of sororities and fraternities.

In the light of this intensive qualitative analysis and reconstruction, I cannot accept Mr. Vreeland's conclusions. The trends he discovered are not in conflict, but in perfect conformity with the institutional pattern of the fraternity. The fraternity does not intend to provide "equal acceptance for all," but equal opportunities to be accepted, in contrast with outsiders, "independents," who are not given such opportunities. The degree of attraction of which an individual actually forms the center, whether in the fraternity or elsewhere, does not depend on "personality traits," if by "personality traits" we mean generalized observation by psychologists who are not socially connected with the observed subjects. It depends on the degree in which an individual, as the object of social experience of those who are in contact with him, is characterized and evaluated by them as a desirable personality from their own point of view. Every social group possesses its own common standards to which it subjects such characterizations and evaluations. A college fraternity has very definite, culturally conditioned standards of personal worth. These standards are manifested in the selection of candidates, in the education of pledges, in the choice of members for leading positions within the group, in the support given to members outside of the group. The test of "friendship preferences" given by Vreeland clearly shows that the spontaneous attitudes of members (in so far as we can con-

clude from voluntary and socially uncontrolled symbolic manifestations) tend to follow these standards.

Thus, entering members as a social category are expected to be judged as less valuable personally than older actives, whose personalities have become more fully adjusted to group standards. "The persistence of stars and isolates" agrees with the principle of personal "merit" and "demerit": individuals who during a period of time have been judged as deserving a high or low valuation acquire a corresponding status which conditions their future valuations. The tendency to select friends from among the same college class is, indeed, not founded on fraternity standards, but can be traced back to the influence of a traditional axionormative pattern which exists in both high school and college: according to this, individuals belonging to the same age class within the school are supposed to constitute a solidary group whose members "ought to" prefer one another to members of other age groups, and this traditional solidarity cuts across the solidarity of the fraternal group.

The problem of divergence between the "institutional" patterns and unpatterned "socio-psychological" variations is not to be found in the trends which Mr. Vreeland has observed, but on the contrary in the fact that individuals are not unanimously graded from the highest to the lowest degree of personal desirability. The differences in preferences expressed by choosers suggests that either many choosers have not fully accepted group standards of personal worth or these standards are too complex to be adequately applied in the choice of "friends."

The first hypothesis could be tested by studying the social histories of intimate sets, gossip cliques, and power rings; the second, by more precise sociometric methods which took into consideration preferences for associates in various specific situations. Thus, an investigation of professional fraternities seems to indicate that faculty members are often spontaneously preferred by students to other students in situations which involve intellectual intercourse, but seldom for purely companionate intercourse.

But the most important conclusion to be drawn from a comparison of expressed friendship preferences with the axionormative order of fraternal groups is the *need to extend sociometric methods from attitudes to actions*. The term "isolate," as applied to an individual fraternity member toward whom no friendship preference has been symbolically expressed, is confusingly inaccurate, for no fraternity member is socially "isolated" from friendly social intercourse. In this respect the contrast between his "social atom" and that of a new "independent" with no group affiliation makes him a privileged person in the experience of both affiliates and independents.

Indeed, newcomers into a fraternity who are generally rated low as friends become the objects of continuous altruistic solicitude on the part of older members. While some of this solicitude manifests itself in repressive and punitive actions which, though intended for the newcomer's "own good," do not express spontaneous social attraction and provoke spontaneous repulsion, yet much of it ranges from superficial but genuine companionship to intimate friendliness. Such actions are normatively required by the pattern of the fraternal group: it is the "duty" of older members to make newcomers feel at home, to introduce them into companionate intercourse, to develop in them sentimental loyalty to the group, to smooth down inter-personal conflicts, and to stimulate inter-personal sympathy and understanding. To assume that actions which conform with one's "duty" are for that very reason never "spontaneous" would be to repeat the old and familiar error of moral disciplinarians.

What sociometry can and—let us hope—will do in studying such data as fraternities is to develop methods of determining the degree to which the inner dynamics of the group actually conforms with its culturally patterned normative order. This would involve, first, a measurement (in terms of the three variables, number, duration, and intensity) of the total quantity of those actions among members which in their collective judgment conform with normative requirements, taking into consideration their distribution according to the special roles that are assigned to individuals within the group structure; secondly, a parallel measurement of the quantity of actions which are judged to conflict with normative requirements; thirdly, a determination of the changing correlation between these two quantities in the course of time.⁷

If the results of such a study were correlated with the present type of investigation of inter-personal attitudes, valid conclusions could be drawn as to the relative degree of support and resistance which the axionormative order of fraternities as social systems encounters among its participants. And I believe that variations in support and in resistance could be causally explained by the fact that the fraternity as a system, though structurally closed, is not functionally isolated: because the "social atoms" of its participants extend far beyond its limits and each of them is also a participant in other social systems, they are all bearers of cultural influences which affect the functioning of the fraternity.

⁷So far as I know, such measurements have never been attempted. Some criminologists have tried to measure the quantity of individual transgressions of the negative norms in a society and assumed (without measuring the quantity of actions conforming with positive norms) that conformity is inversely proportionate to transgression. The development of sociometry would eliminate such elementary logical errors.

When methods of sociometric observation and analysis are extended from attitudes to actions, as methods of qualitative sociological observation and analysis have already been extended, the scientific possibilities implied in Moreno's conception of *sociometric experiment* will begin to materialize. Although men have been "experimenting" practically in the social field for thousands of years and every practical social experiment—unlike a physical or biological experiment—requires some active participation from those who are the objects of experimental initiative, no adequate methods of testing the results of social experiments by methodical observation exist at all.

Having studied sociologically for many years that widespread and familiar kind of social experimentation which is called "education," I find not only that the social character of educational situations is seldom, if ever, adequately considered in planning educational experiments, but also that not a single attempt has been made in educational literature to follow up systematically the consequences of educational experiments in "personality formation" by investigating comparatively the later social history of individuals who have been subjected in childhood and youth to such experiments.

And—taking another familiar example—nothing has been done to investigate scientifically the political experiment called "The League of Nations" while it was proceeding to its inevitable failure. Unless the new experiment of a political world order which statesmen are planning right now is subjected to continuous methodical observation and steadily modified and expanded in the light of this observation, we are facing the probability of another tragic failure. Perhaps if Moreno's idea of sociometric experimentation had been widely promulgated fifty years ago and consistently applied since then, the course of history might have been different. Let us hope that in coöperation with sociological observation and analysis it will be developed rapidly enough to prevent another world cataclysm.

THE RELATION OF SOCIOMETRY TO PLANNING IN AN EXPANDING SOCIAL UNIVERSE

F. STUART CHAPIN

University of Minnesota

General Smuts recently said, "The world has grown smaller in space but larger in vision." My interest in discussing the meaning of sociometry and its position among the social sciences is in attempting to show why I believe that sociometry has a research contribution to make to this larger vision, which is a prerequisite to the long view, and so essential to human adjustments in an expanding social universe. One of the most significant trends emerging out of these tragic times is the tendency to think in global terms. Lend-lease, air transport, the Atlantic Charter—all represent releases from the conventional grooves of traditional thought. Straining to think in terms of large units of global human relations is hard work. But it is worth the effort. For the first time in the history of mankind, large masses of men have been forced to challenge the traditional frames of reference.

If sociometry is to serve its greatest usefulness and to realize the unbounded opportunities implicit in an expanding social universe it is necessary frankly to face the need of defining sociometry in research terms large enough to embrace its potential possibilities. Several possibilities present themselves.

First, is sociometry a very special technique devoted to the quantitative description of informal friendship constellations? In my opinion this is too narrow a conception, albeit Doctor Moreno's valuable researches have been largely an illustration of this meaning of the term. Evidently Doctor Bain agrees with me in disapproving of this too narrow point of view.

Second, is sociometry an applied science, a therapeutic art? Again it is my opinion that this also is too narrow a conception. Furthermore, there is in such a conception, as well as in the first, a real danger that sociometry will degenerate into a cult. Doctor Bain and Doctor Dodd apparently agree with me in this view.

Third, is sociometry to be taken as a concise and effective synonym for the new method of social measurement? This is, in my opinion, the optimum meaning of the term sociometry. It avoids at once the narrowness of the first definition and the menace inherent in the second. Apparently Doctor Bain and Doctor Dodd agree with me in this view, and I judge that Doctor Moreno is himself sympathetic with this interpretation. If so, let us consider some of the advantages of this meaning of the term.

In the first place, Doctor Bain has presented a convincing argument to show that genuinely scientific terms depend upon usage and consensus. Social measurements now include hundreds of scales which measure social attitudes, neighborhood folkways, social participation, socio-economic status, community relationships, and similar forms of behavior. In an article published in the July, 1940, issue of *Sociometry*, I cited several score of references, some of which were themselves summaries of scores of other research studies.¹ But the term "social measurement" is a bit clumsy. What better synonym than a short and euphonious term such as sociometry can be found to cover this imposing array of quantitative description?

Second, social measurements bear to social practice and to social therapy the relation of diagnostic tools to supplement the expert and mature judgment of a practitioner. In this respect, sociometry would include the practical applications in an art just as physical measurements contribute valuable tools to the art of physical medicine. Thus, sociometry as scientific social measurement in the broadest sense may become a tool auxiliary to scientific diagnosis and treatment and avoid becoming a cult, a fad applied by quacks.

Sociometry thus conceived may then be defined as the science of social measurements. The conciseness, clarity, and symmetry of the word "sociometry" used in this fashion provides a term that may soon have the support of usage and consensus.

Now let us return to the problem of planning in an expanding social universe and consider how sociometry may make its contribution.

Post-war planning is an idea one meets on every hand. It is urged that we begin at once to think through our probable post-war problems of military demobilization, industrial worker demobilization, industrial plant conversion, the scaling down of such war-time controls as price-fixing, man power regulation, and rationing, the question of unemployment, the problems of indebtedness and taxation, the promise of new industrial developments in plastics, television, radio telephone, air transport, synthetic foods and commodities, etc. So runs the prevailing argument. Obviously these are all problems of planning and prediction. We hope that by beginning now to try to think through these problems we can avoid some of the wastes of "muddling through." In short, we hope that some of the expensive and costly failures of crude trial and error may be avoided by plans, blueprints, and predictions.

In order to see the point in this maze of impending changes at which sociometry may make its useful contribution, let us analyze as objectively as

¹"Trends in Sociometrics and Critique," *Sociometry*, Vol. III, No. 2, pp. 245-262.

possible the differences between the process of trial and error on the one hand, and of planning and prediction on the other hand. To do this we may first inquire: What does the concept "trial and error" stand for? What does the concept "planning" stand for? What does the concept "prediction" stand for? One answer to this question may be found in a simple application of semantics.²

The following table presents a schematic analysis of several interrelated concepts which are widely used in discussions of post-war problems. The first row in the first column carries the entry, "trial and error on the overt level," because this is the beginning of all exploratory behavior that seeks the solution of some problem which a human being faces. When we say that so-and-so is attempting to solve his problem by trial and error what do we mean? What does the concept or phrase stand for? What are its referents? In the second column of row 1 we make the entry, "manipulation of objects into different arrangements." This is the referent of the term; it is what it stands for; it is its meaning. We may now put the two together and assert, "Trial and error on the overt level is the manipulation of objects into different arrangements." Thus we see that the concept, trial and error, has fact referents, observed differences in kind or perhaps in degree.

All concepts and terms do not, however, have such easily observed fact referents. Indeed, some terms widely used in problem-solving behavior seem to have no fact referents composed of sense perceptions. This would seem to be the case with such terms as "intuition" or "hunch". What is the referent of this term? To answer this question we are obliged to resort to other terms or words. We say that the hunch is merely guessing. Thus some concepts seem to have only linguistic referents.

This was the situation for a long time with respect to the term "atom". Now, however, physical research using refined measurements has advanced to the stage to which our senses respond to fluctuations in delicately balanced physical instruments which in turn reflect differences in atomic structures too minute to be recorded directly by our rather crude human sensory apparatus. The process of scientific measurement, in short, extends our powers of sense perception by interposing delicate physical instruments between our sense perceptrors and minute differences in physical substances. This process of scientific advance is also seen in cruder form in the use of carefully calibrated attitude scales which enable us to note small differ-

²For a more technical discussion of this method, see the author's article, "The Syntactical Analysis of Sociometric Techniques: Cases in Point," *Sociometry*, Vol. IV, No. 2, May 1941, pp. 177-183.

Concepts and Terms	Referents			
	having fact referents observed as differences in		having linguistic (or numerical) referents	
	kind	degree	Potential fact referents	Purely linguistic
(1)	(2)	(3)	(4)	(5)
1. Trial and error on overt level	Manipulation of objects into different arrangements			
2. Trial and error on covert or thought level			Manipulation of terms or words that stand for sense experience. Empirical predictions* and empirical planning† ↓ ↓	← Concepts or terms stand for imagined objects or arrangement of objects
3. Prediction (scientific)			Extrapolation from measured trend lines, concepts based on measurements	← Concepts or terms acquire potential fact referents
4. Planning (scientific)			Master plans; engineering blueprints; inventor's models. Concepts based on experiments.	← Concepts or terms acquire potential fact referents
5. Intuition (scientific)			↑ (?) ← Terms stand for memories or images of past experiences, not organized at the focus of critical attention or observation, but general and non-specific.	← Mere guessing, because concepts or terms have only class names or group names as referents, no specific objects or specific arrangements

*Prediction is a preparatory reaction seeking adjustment now to an anticipated (feared or desired) future need or event or consequence which is represented by words or visual images. It is a reaction to a substitute stimulus of symbols.

†Planning is essentially trial and error on the thought level to avoid wasteful trial and error on the overt level. It is a form of substitute response in which words or visual images that stand for real things are manipulated in advance of the physical manipulations of the real things for which the symbols stand.

ences in the strength of beliefs about social issues, differences too slight to be noted in ordinary conversation. Since sociometry defined as social measurement includes the construction and calibration of scales to measure social attitudes, it at once becomes evident that sociometry has the power to extend sensory perceptions to the realm of formerly imperceptible variations in belief about social issues. In this way, the term "guessing" which is originally a mere linguistic referent for the concept "intuition" may perhaps be given specificity and in time come to attain the more objective condition of having at least potential fact referents (see row 5, column 4). We shall presently return to the problem of intuition, but it may be said parenthetically that I have completed and published one paper in which I demonstrated the possibility of giving a concept such as "social insight," ordinarily regarded as an intangible, a potential fact referent in a sociometric scale, a scale which differentiates significantly by scores between the clerical workers and the executives of the same organization.³

If this explanation of the processes by which a concept that originally has only linguistic referents comes to attain the stage of having at least potential fact referents is clear to the reader, we are now ready to tackle the semantic analysis of other concepts such as trial and error on the thought level, prediction and planning.

Since the first approach to prediction and planning is a process that may be called trial and error on the covert or thought level, let us inquire into the referents of this concept. What is that we do when we think? We manipulate words or images that usually stand for objects (as in reverie). Unlike overt trial and error where the real objects are put in successive arrangements, we manipulate words and memory images when we think. In trial and error on the thought level we therefore manipulate the words or memory images (symbols) that stand for objects that presumably have or had existence, e.g. words or images that stand for sensory experience. This is the crude empirical level of planning and prediction.

In scientific prediction and planning we also manipulate concepts, terms, words, and memory images, but these have at least potential fact referents. Now it is in the weakness of the correspondence between these terms or images (symbols) and the real things they represent (other factors being held constant) that we find the limitations of scientific planning and prediction. Two methods have been developed in science to provide this exact correspondence: one is by scientific measurements⁴ and the other by

³"Preliminary Standardization of a Social Insight Scale," *American Sociological Review*, Vol. VII, No. 2, April 1942, pp. 214-225.

⁴*Op. cit.*

the method of experiment.⁵

In these methods, numerical expressions stand for differences in degree of different kinds of experience. Numerical expressions so used have the advantage of easy manipulation, and more important still, they are susceptible of verification. Thus we make measurements, plot trend lines, and extrapolate observations within the limits of probability; or we conduct control experiments and from these make master plans, engineering blueprints, or inventor's models.

From this analysis the central importance of measurement is readily seen. Measurement is at the very center of all scientific advances. Social measurement, or sociometry, is still in its beginnings. Although I have summarized the scope and kinds of social measurements already made, it is to be noted that most sociometric scales are still relatively crude instruments of observation. Yet there seems no good reason to think that sociometry may not in time become much more precise than it is at present, even though it may never attain the accuracy of physical measurements.

Another glance at our table suggests certain logical interrelationships that are of use in understanding the possibilities of sociometry. In the first place, trial and error on the thought level in its empirical stage opens up the possibility of prediction and planning in a scientific stage. In the second place, scientific prediction and planning in limited areas and with nearby objectives leads to less wasteful trial and error on the overt level with larger units and more distant objectives. Sociometry, by promoting measurement and experimentation, may contribute to the exactness of the correspondence between social concepts and the social referents for which the concepts stand. This should facilitate social planning and social prediction with respect to limited objectives. Any improvement in planning for or prediction of limited objectives facilitates trial and error that involves larger units and more distant objectives because it reduces the waste of trial and error on large-scale problems approached blindly. The problem of global planning is one of large units and distant objectives. Thus we conclude that social planning in an expanding social universe may be promoted by sociometry.

⁵The possibilities and limitations of the experimental method in sociology are discussed in three papers by the author: "Design for Social Experiments," *American Sociological Review*, Vol. III, No. 4, December 1938, pp. 786-800; "An Experiment on the Social Effects of Good Housing," *American Sociological Review*, Vol. V, No. 6, December 1940, pp. 868-879; and in the forthcoming paper to be published in the April 1943 issue of the *American Sociological Review*, "Some Problems in Field Interviews when Using the Control Group Technique in Studies in the Community."

Finally let us return to the concept of intuition. The disrepute into which this term has fallen among many scientists is due to the fact that it is used without proper discrimination; for instance if intuition is to be regarded as a tool of research to be set alongside of measurement and experiment, only confusion results. Intuition does not describe objects of sensory experience. It is not a form of scientific description. If it is used in this sense, it becomes an escape-from-reality device which helps wishful thinkers find what they desire to find. This is the use of the term that is properly condemned because it leads over imperceptibly into clairvoyance, telepathy, premonitions, mystic insight, and similar delusions. But on the other hand, if intuition is regarded as a process of thinking in which the purpose is explanation of dim memory, it may yield useful results. I would, therefore, define intuition as a process. The intuitive process consists of a convergence of as yet un verbalized experience (because only organically recorded) into a pattern of response below the threshold of critical attention; this pattern may then emerge in part, and when verbalized, serves as a partial explanation of the problem which acted as the original stimulus. Intuition is then a judgment based on the convergence and integration of former impressions of memory into a pattern of explanation in which the perceptual details are not at the threshold of critical attention.

This definition has the merit of using as referents terms that stand for memories or images of past experience and thus takes the concept out of the purely linguistic type of referents and transfers it into an area of potential fact referents. Since it is known that intuitions sometimes lead to valid explanations and offer clues to eventual solution of problems (both practical and scientific), it would appear that this definition is serviceable. So defined, we may understand how the intuitive process may lead to fruitful working hypotheses which stimulate planning and prediction in the meaning defined in rows 4 and 5 and columns 4 and 5 of our table.

We may therefore conclude that the concepts, trial and error on the overt level, trial and error on the thought level, prediction, planning, and intuition are all interrelated in the process of social research, and that a sociometry which provides measurements to make more exact the correspondence between these concepts and the things for which they stand may make a useful contribution to our understanding and control of human behavior in an expanding social universe.

REMARQUES ON SOCIOMETRY AND DODD'S AND BAIN'S PAPERS

PITIRIM A. SOROKIN

Harvard University
Cambridge, Massachusetts

1. As far as S. C. Dodd's and Read Bain's conception of general and special sociologies is concerned I do not have any quarrel with it for the simple reason of their conception being a mere reproduction of my definition of general and special sociologies offered many years ago.¹ This concord in the formal definition does not preclude, however, a fundamental difference in the "filling" or "content" put into the definition; so far as the actual works of Dodd and Bain show they have hardly followed their formal definition in their actual "sociological" works. Likewise theirs and my conceptions of the method of sociology are probably as different as they can be: most of what they call a "scientific method" and "a natural science sociology" is, in my opinion, an utterly unscientific method and a pseudo-science of social phenomena.

2. As far as "sociometry" is concerned, the term itself is perfectly unimportant: as a matter of fact it is an old term used by some of the "social physicists" of the seventeenth century and more recently by A. Coste: each of its early users gave to it a different meaning and applied it to a different set of the phenomena studied.² If one wants to use the term, when properly defined, it may be used in application to any problem or any method, just as one can use X or Y or any other symbol. Most logical meaning of the term, however, seems to designate *all the quantitative studies of the quantitative aspects of social phenomena*. These phenomena have, side by side with their qualitative aspect, a quantitative aspect. Though this aspect is neither the only nor the most important aspect of social reality, it is important enough to be studied and, when really measurable, to be measured. "Sociometry" may mean therefore the total sum of all such studies (excluding all the spurious pseudo-quantitative studies that make up the bulk of the contemporary so called "quantitative research"). But, again, there is neither logical nor any other necessity to use the term even for this class of studies: a term "quantitative studies of social phenomena" serves as well as the term "sociometry."

¹See P. Sorokin. *Contemporary Sociological Theories* (New York, 1928), ch. xiv; P. Sorokin, "Sociology as a Science", *Social Forces*, Vol. X; 21-27 (1931).

²See P. Sorokin, *Contemporary Sociological Theories*, pp. 4 ff., 364 ff.

3. Finally, as to the actual works of Dr. Moreno's "Sociometry" and then of the "Sociometric Institute", they have been so diverse in their nature, and covered actually so different fields (from biology, psychiatry, psychology to sociology, theater, drama and rural re-settlement), and used so different methods and techniques, that it is impossible to put all of these into one class and, consequently, to cover them all by one and the same term, of either "sociometry" or any other. From the fact that the *Principia* and *The Observations upon the Prophecies of Daniel and the Apocalypse of St. John* and *The Chronology of Ancient Kingdoms Amended* were written by the same Sir Isaac Newton does not follow that they all belong to the same class of scientific studies and should be covered by the same term of either Mechanics or Theology or History. For similar reason the heterogeneous works of Dr. Moreno and of the *Sociometric Institute* cannot be covered by the same name. If one wants by all means to use the term of "sociometry" the above quantitative studies appear to be the most suitable class to be covered by such a term. However, fruitfulness of any scientific study does not depend upon the term used to designate it. What we need now, as always, is more and more of the really scientific studies of fruitful and important nature and less and less of the purely sterile, bureaucratic, epigonic debate on terms and terminology.

SOCIOMETRY AND THE CONCEPT OF THE MOMENT

HENRIK F. INFELD

Rural Settlement Institute

Sociometry and the "moment." The relation of Dr. Moreno's sociometry to sociology in general, and to sociometry's place within the American Sociological Society in particular poses two question: Can sociometry be considered exhaustively defined by the novel techniques of social measurement initiated by Moreno and developed by himself and others like Dodd, Jennings, Lazarsfeld, Loomis, Lundberg, Zeleny, to name only a few, or does sociometry imply a distinct and specific new approach to the study of society. In the first case these techniques have to be considered as tools to be added to other tools used in quantitative investigations of social phenomena, and as far as the American Sociological Society is concerned, sociometry should be included in a section devoted to "Social Measurement" in general; in the other case, the assignment of a special section to Sociometry will obviously be justified. To me it seems that Moreno's contribution goes further than the addition of new techniques; it appears to lie rather in his stress upon the concept of the "moment." The "moment," as clearly indicated by Moreno himself, is the key-concept in the development of his ideas. In a footnote to the expository first chapter of *Who Shall Survive?*, opposing his own attitude to that of Nietzsche and Freud, Moreno states: "Nietzsche and Freud are essentially historians . . . They did not know what to do with the *moment* . . . They did not take the moment in earnest. It seemed to them that the only thing to do with the moment and its conflicts is to explain them, that is, to discover the associations back to their causes. The other alternative would have appeared an absurdity to them: to live, to act in the moment, to act unanalyzed . . . But there is an alternative: to develop a technique from the moment upward in the direction of life and time."¹ It was the moment "taken in earnest" which started the chain of considerations leading to the evolution of the sociometric procedure which "leaves man in the state in which he is spontaneously inclined to be and to join the groups he is spontaneously inclined to join;" a procedure "based upon the affinities among them (the individuals) and the patterns resulting from their spontaneous interactions."²

¹J. L. Moreno, *Who Shall Survive? A New Approach to the Problem of Human Interrelations*. Nervous and Mental Disease Publishing Co., Washington, D. C., 1934. Notes 3-4, p. 426. Cf. also J. L. Moreno, "The Philosophy of the Moment and the Spontaneity Theatre." *Sociometry*, Vol. IV: No. 4 (November, 1941).

²*Ibid.*, p. 5.

It is for the sake of the most exact investigation of these "patterns" that Moreno developed his technique, tests, charts, and sociograms, with the intention to use the patterns as "a guide in the classification, the construction, and when necessary, for the reconstruction of groupings."³

Such emphasis upon the concept of the moment seems to have significant implications for the development of sociology. It turns sociology away from the ineffectual serenity and detachment of patient classrooms and textbooks, going leisurely all the way back to Adam and Eve, and makes it face the world confronting us now and here. Since the American Sociological Society, as indicated by the signatures attached to the petition for a special section of Sociometry, appears to count among its members a sufficient number of those who wish to investigate the potentialities of such re-orientation, a special section should prove helpful in coordinating their efforts and should, accordingly, be established.

Sociometry and group formation. The interest in group construction and reconstruction dominates all work done by Moreno and others working along the same lines. It appears, however, that the time had come for sociometry to attack problems of the open community on a broader front. That the need for such an attack was realized from the beginning is attested by the fact that a whole part of *Who Shall Survive?* was devoted to related problems, and that a major study of the first volume of "Sociometry" dealt with the establishment of a cooperative community.⁴ Yet it would seem as if the war, and particularly the problems of post-war reconstruction, would call for new exertion in this direction. It is the problem of resettlement, so largely looming in the minds of post-war planners, which will test the ingenuity demonstrated in handling the problems of the American community.

³*Ibid.*

⁴See Moreno, *op. cit.*, Part V, "Sociometric Planning of Society"; and Shepard Wolman, "Sociometric Planning of a New Community," *Sociometry*, Vol. I: Nos. 1 and 2 (July-October, 1937).

JOB ANALYSIS VERSUS SEMANTICS

STUART A. QUEEN

Washington University

St. Louis, Missouri

To a new acquaintance Sociometry gives the impression of a melange of research techniques, treatment procedures and philosophic generalizations. In this respect it is not unlike Sociology. Both terms are used without precision and convey varied meanings to different persons. All of which is perfectly natural, perhaps inevitable, even though disappointing to careful scholars. In like manner it is to be expected that those whose work is symbolized by either of these terms will become defensive on the appearance of a potential rival, and will seek to define boundaries and relationships. This is nothing about which to become excited; within limits it is doubtless profitable; but it may easily pass the point of diminishing returns.

Perhaps we have reached a stage at which the following policy may well be adopted. Let Sociometry, Sociology, Social Psychology, Social Work, and similar terms mean what they mean to their devotees as symbols of what they like to do. Accept the facts of considerable overlapping and haziness of outlines. But proceed to identify clearly and label tentatively, preferably with simple but colorless terms, various types of scholarly activity within the large field so ill defined and so confusingly subdivided.

Thus we may differentiate, for purposes of analysis: (1) the collection of interesting and presumably valuable information, (2) the testing of hypotheses through use of concrete data, (3) the formulation and application of programs of social treatment, (4) the organization of potentially related data and inferences into systems, etc.

Each of these four may then be subdivided, either according to methods employed or according to kinds of data utilized or both. Thus (1) can be broken down into (a) gathering and examining documents, (b) interviewing samples of a population, (c) enumerating persons, traits, or objects, etc. In similar fashion (2) can be divided into use of: (a) statistical and (b) descriptive materials and procedures. The statistical or quantitative procedures can be further divided into those by which simply enumerated data are manipulated and those which employ formal scales, etc., etc.

Now the purpose of these comments is not to propose a new or reproduce some old schematic division of the social sciences or even of Sociology. It is merely to urge that, instead of arguing about the meaning (etymology, popular usage, or proprietary symbolism) of words, we concentrate our

attention on what is going on. Then as we identify and characterize various types of more or less "scientific" behavior let us see if we can agree on convenient labels. In this way we can probably arrive at more useful results than by engaging in semantic jousts, no matter how interesting the latter may be. I, for one, can no longer get very excited over the relations between Sociology, Sociometry, Social Psychology, etc., treated as entities. But I am very much concerned that we should increase our understanding of just what we are about in the various jobs at which we are working. In the attainment of such understanding we need to engage in joint thinking and action—it matters little under what banners.

THE VALUE OF SOCIOMETRY TO EDUCATION

LESLIE D. ZELENY

*1st Lieutenant, Air Corps
Brooks Field, Texas*

Sociometry, a science of the measurement of interpersonal reactions in groups, can render valuable service to education, for learning and personality development are largely group processes.

In support of the foregoing statement the writer would like to present a brief account of the use of sociometry in the organization of learning groups in a fifth grade science class conducted by Miss Beatrice Williams, fifth grade supervisor, State Teachers College, St. Cloud, Minnesota.

Interpersonal reactions were measured by the Group Membership Record, described previously in these pages. With the results of this test an interpersonal reaction table was constructed showing the reaction of every child toward every other child in the classroom. These reactions were expressed in units of intensity ranging from +1.0 (representing a high degree of positive reaction) to -1.0 (representing a high degree of negative reaction).

Using the information in the interpersonal reaction table, the writer and the fifth grade teacher organized five groups of students with the following average intensities of interpersonal reactions: +0.45; +0.50; +0.08; +0.58; 0.23. Following the organization of the groups sociometrically, pupils in each were allowed to select from a limited list of required science problems those in which they were most interested for group study. In this manner, group activity was destined to be satisfying because the students responded positively to one another (except possibly in group three) and to the subject matter to be studied.

Science groups thus organized carried on science activities daily for five months. At the end of this time the pupils attained a grade average of 7.2 on the Stanford Achievement Test—an increase from 5.9 at the end of the fourth grade.

But the group method, aided by sociometry, did more than transmit necessary science facts; it also contributed to the development of personality. The interpersonal reaction table showed that the average intensity of the reactions received by pupils varied from a +.64 to a -.75. Six of the twenty-three pupils in the class were disliked more than they were liked; and many others attained a relatively low social status with their fellows. Pupils who ranked high worked well, spoke clearly and interestingly,

were reasonably quiet, and friendly. Those who ranked low talked too much, bothered pupils, acted silly and did not know how to get down to work. A problem of the teacher was to help individual students play more satisfying roles in their learning groups. This she attempted to do in two ways: individual conferences and occasional "truth parties" in which each child told the others frankly the reasons why they succeeded or failed in their group relationships. For the twenty-two pupils who completed the year's work, fifteen increased their status (as measured by the Group Membership Record) and seven decreased. The average increase of the fifteen was $+.14$ units and the average decrease of the seven was $-.12$ units. Ten students made a marked increase in status and only two students made a marked decrease.

The practical use of sociometry in modern educational procedures where the group method of learning is used has been shown in this case to facilitate the learning of facts and the development of personality; consequently, this study supports the belief of the writer that sociometry makes a valuable contribution to education. Its wider use in education would take much of current guess-work out of group learning methods and out of teachers interviews with children. Sociometric methods will reveal quickly and accurately to the teacher group situations that frustrate a child; then the child's group can be changed, the group can be instructed to behave differently toward the child and the child can be advised how to behave differently toward the group. The results of such instruction can be measured.

SOCIOMETRY AND THE SOCIOLOGY CLASSROOM

IRWIN T. SANDERS

University of Kentucky

Sociometry has continued to attract my attention not because I think it has the possibility of developing into the super social science which we hope will some day appear on the scene, nor because I have been particularly impressed with the theoretical contributions to date of those working in this field. Its appeal has been rather in the techniques and methods by which the data of the social sciences could be made clear to others without the verbal barrage which usually accompanies a sociological explanation of ordinary life experiences. One student upon examining sociograms in class said, "That's the first thing I've found in this course that I could actually use." She went forthwith to her sorority house and, as house president, made a sociogram of the residents. Such a statement by a student may be a condemnation of my teaching but it seems rather to indicate the inadequacy of our illustrative materials and techniques in conveying our social analyses to the novice in sociology.

It is truismatic to say that in building up a discipline we need both concrete or specific thinking as well as abstract and generalized thinking. The sociological writing, as one would expect in the infancy of any science, has tended to emphasize the generalized to the neglect at times of the specific. Let me illustrate. Suppose I wanted to teach a class of college sophomores something of the nature of group life in the hope that they would be able to apply what they learned in class to actual situations on the campus and in their own home communities. Where would I turn for suitable materials? The chances are that I would derive the most useful material from the fringes of sociology rather than from the core. The writings of some educational sociologists, the material from the Boy Scouts, church groups and others engaged in group work would be of more aid than the strictly sociological literature itself. Why is this? It is because we as sociologists have not gotten down to the specific or concrete situations sufficiently. Students must have the theory but they must also have understandable applications of the theory or the assurance that the theory has a basis in everyday experiences. Sociometry, bringing with it something of a fresh approach, reminds us that the specific is important.

Of course, to command the notice of those steeped in the sociological traditions sociometry has had to operate within a theoretical framework, which may or may not prove to be significant. Others in this symposium

are concerning themselves with that question. My own opinion is that the chief contribution sociometry has made to sociology is in focusing our attention once more upon the elemental feature of our discipline: namely, the specific relations between socialized individuals and the groups which they create.

I would not for a moment minimize the importance of developing sociological theory, of generalizations and of abstract thinking. But I do know that in teaching sociology theory alone, mere statement of generalizations or even pleasant excursions into the abstract confuse more than clarify. However, when accompanied by the specific, theory takes on meaning, generalizations become alive, and the abstract seems significant. It is in this latter role that sociometry has shown its importance.

It is most likely that sociometry also is making its contribution to theory by accumulating sufficient analyses of everyday situations to provide later bases for generalizations and principles. Mass observation in England is undertaking what should have been started long ago, but attempts at such systematic collection of data in America have been sporadic, to say the least. Sociometry through creating lay interest in interpersonal relations has helped us move in the right direction toward this objective.

Throughout this discussion attention has been centered upon the student in a classroom situation. This is because of a firm conviction on my part that sociology will move forward as a science only insofar as *students* are given an understanding of society. One does not make sociology scientific merely by the act of writing an abstruse tome or by discussing terminology in learned journals. A very important way by which progress will be made is in terms of the student human equation. If each student generation understands a little more about society than the one that preceded it then I have no fear about the future of sociology. Methods of teaching theory must not lag too far behind the theory itself. For after all, the chief measure of progress is student comprehension, not merely the sociological index in the library. Sociometry is one aid in helping achieve this comprehension.

VALUES OF SOCIOMETRIC STUDIES IN THE CLASSROOM

MERL E. BONNEY

*North Texas State Teachers College
Denton, Texas*

On the basis of five years experience with sociometric studies in the elementary grades from the first through the fifth, I would say that the chief value of such studies to teachers is to make them more conscious of the importance of inter-personal relationships among the children they teach. When teachers see the results of pupil choices of each other on a friendship basis, they are stimulated to think more about the problems involved. Their attention is arrested by the fact that a few children (approximately ten per cent) are consistently isolates. They are almost never chosen by anyone for any purpose. The fact that these isolated children are generally not discriminated against in any obvious or overt manner causes the teacher to assume that they are better accepted than they really are. Also teachers are usually surprised at the extent to which social acceptance is concentrated around a few most popular pupils. In some groups I have studied, the upper twenty per cent of the children have received more than fifty per cent of the votes. The discovery of this concentration of status has stimulated some teachers to do more to bring other children to the front in group activities. When this is done, the very popular children do not lose their popularity; there is just more popularity in the group. This is a gain for all, since a socially competent child is not only more happy himself but is also more stimulating to all others whom he contacts.

Sociometric studies have also called the attention of classroom teachers to the finding that the social status of children is characterized by a rather high degree of constancy. My data shows general social acceptance between the second and fourth grades to be approximately as constant as I. Qs. and academic achievement. This means that if the school is to make a significant difference in the social status of most pupils it will have to concentrate more on the development of social skills than is generally done. Of course there are some conditions which the school cannot successfully counteract. Judging from a few cases which have come to my attention, it would seem that the school is more apt to succeed in raising a child from a poor to a good social status when the economic and cultural factors in the home background are not too unfavorable.

Another striking finding from sociometric studies in the classroom is

the low correlation between I. Qs. and academic achievement on the one hand, and social acceptance scores on the other. Although it is true that the upper fourth in popularity is decidedly superior to the lower fourth in the above measures, when a whole classroom group is considered the relationships are definitely low. Nearly all the correlations are in the thirties. This finding should be an effective warning against an over-intellectualized conception of child development. The promotion of social skills should be as definitely planned for in the school program as the acquisition of number concepts.

One of the most common uses of the results of sociometric tests by teachers is as a basis for appointing committees, or other working groups, in the classroom. It is a matter of common knowledge that people will co-operate better and get a job done with less friction if they like each other. It may be pointed out that if a child is put with others who do not accept him very well, association with them may cause him to be better accepted. This is true, and is often done by teachers using sociometric data, but better acceptance is not likely to be the result unless the unpopular child has a definite contribution to make toward whatever the group is doing.

One of the teachers with whom I have worked has used sociometric assignments to good effect. For instance, one shy girl who was known to have a low social acceptance was seated across the aisle from a popular, socially aggressive girl with the hope that the latter would initiate contacts with the former. This actually happened in a number of ways, particularly in respect to conversation. The shy child was stimulated to make many social responses which she would not otherwise have made, and also initiated some herself. Thus the traditional misdemeanor of whispering, for which some children are still slapped on their hands with rulers, was used by this teacher to promote social development in a child who needed to learn to communicate. This same teacher has also made careful selections of pupils to be sent on errands, to be in reading groups, in plays, and in recreational activities, from the point of view of trying to bring about favorable associations between children of high and low social acceptance as shown by sociometric tests. The fact that some teacher selections are made does not change the fact that most working groups should be composed of children who like each other. Also it should be kept in mind that some children who have a low social status are not disliked; they are just ignored, and need only some assistance to be better appreciated.

Teachers in various parts of the country are beginning to see the importance of using pupil choices as a means of studying social patterns in their groups. In Oakland, California (*Progressive Education*, November,

1941), teachers are using sociograms to locate sub-groups and mutual attraction patterns in their classrooms. Numerous devices are used to aid those who are isolates, such as seating arrangements, committee appointments, specific instruction in social skills, individual conferences, opportunities to be important, and stimulation of parents to bring together in their homes children who are likely to become friends. In Gladewater, Texas, Oleta Ricketts reports that sociometric studies have given her the most tangible basis for understanding the social needs of her junior high pupils that she has ever had. When the pupil choices show that one child wishes to be a friend of another one, she arranges for them to be responsible for a piece of work, and tries to see to it that the one seeking friendship is capable in the thing to be done so that he will be more likely to make a favorable impression on his companion.

Sociometric tests have a contribution to make in deciding some cases of questionable promotion. Here, for instance, is a second grade child whose academic attainment is very weak. Should she be promoted to the third grade? The record of pupil choices for both the first and second grades showed she had fallen consistently in the lowest twenty per cent in social acceptance—apparently because of social and emotional immaturity. It was decided to retain the child in the hope that another year in the second grade would enable her not only to attain better academic success but also to establish better social status with a new group of pupils who did not have her pigeonholed in their minds as a certain kind of weak individual whom everybody ignored. Subsequent results bore out the wisdom of this decision.

Another area in which sociometric studies have value is the determining of the effects of a strict as compared with a liberal type of classroom control on the part of the teacher. On the basis of comparisons between several groups which I have studied, it seems that a strict teacher control results in a more homogeneous social group, *i.e.*, less range and a lower standard deviation on sociometric scores, than is found in groups with a liberal control. The reason for this difference seems to be that under strict control the pupils have less opportunity for self assertion and expression and, consequently, the more capable children do not have a chance to stand out as far from the average in social skills and leadership as would be possible under a liberal control. If the above finding should prove to be true in a large number of groups under controlled conditions it would constitute further scientific evidence in support of democratic teacher-pupil relationships.

Space does not permit further discussion of the values of sociometric studies to the classroom teacher. Mention may be given, however, to the

possibility of using such studies in helping to determine the the best kind of classification of pupils for promoting personality development. On this point the advisability of putting country children in with city children through consolidation should come in for consideration. Also, teachers may obtain from sociometric studies a much more accurate appraisal of the role of family size in the social acceptance of children and a much more vivid realization of problems relating to sex differences in socialization.

SOCIOMETRY AND SOCIAL AGENCIES

LEONA M. KERSTETTER

*Young Women's Christian Association
Camden, New Jersey*

Sociometry is truly basic to the realization of the ultimate goals in a group work agency such as a Y.W.C.A. etc. There are many areas of work in which sociometry can be applied.

First, let us consider the place of sociometry in the total association. The responsibility for planning and carrying on the work is centered in the Board of Directors, and the committees which are composed of volunteer workers. The volunteers are assisted by the staff. One of the most important problems is to appoint committees that will function. Here sociometry can be an invaluable aid. A sociometric test in the form of a questionnaire administered to the entire constituency would reveal the information needed for the choices of person who would work together effectively. Such a questionnaire questions such as—On which of the following committees do you prefer to work, give the names of persons whom you would like to have on your committee, give the names of those you would not like to have on your committee, state your reasons for your choices,—would supply the agency with the kind of information vital to the functioning of the entire organization. The group process would be facilitated if the groups were selected on this basis.

Sociometric tests and observation can also reveal important aspects of staff relationships and relationships between staff and volunteers. Sociometry places the emphasis on the personality of the persons concerned and his adjustment in specific situations. Thus more effective results in work and activity are secured.

Sociometry is not only invaluable in determining the structure of the organization but it is also basic to the success of the program. If an agency is to gear its program to community needs those persons who are responsible for directing such a program must first have the knowledge of the psychological geography of a community which is gained through the application of sociometric techniques.

The ability of an agency to play a significant role in community life is largely dependent upon the state of its public relations. Basic to the establishment of better relations is a knowledge of the channels through which opinion is *most readily formed*.

These channels can be indicated in black and white through the socio-

metric study of a community which will reveal the psychological networks in the population. An ideal to be achieved is to have available sociometric data of both an agency and a community so that a fusion of the networks in the constituency of the agency and those in the population of the community at large may take place. This will really insure an agency of becoming a vital part of community life and facilitate the control of its public relations.

Not only can sociometry be an aid in the development of the kind of public relations which contribute to the success of the work of an agency but it can also be applied in specific program areas. One of our greatest concerns at present is the teen-age problem which has almost become synonymous in the public mind, with juvenile delinquency. Through an application of sociometric tests to school groups in a community it would be possible to gain a knowledge of the natural groups and gangs in embryo. On the basis of such knowledge a more adequate program could be developed.

In our own association Dorothy Pratt Gallagher has used sociometric tests to assist in evaluating the work of Girl Reserve Clubs. An evaluation of the club based upon the subjective judgment of the observer was written. A sociometric test was then administered. We are now in the process of determining the relationship between the attractions and repulsions in the group as revealed by a sociogram and the success of the club and its program. A test might also be devised to study the relationship between adult advisers and club members.

Today we have the important problem of women workers. Women are under the stress and strain of learning many new roles. Every facility for making adjustments to these new roles easier should be employed. Not only the aptitude for a specific job should decide the training and placement of a worker in a specific industry but the inter-personal relationships with a fellow worker should be tested. Every aid should be given to the worker to bring about the highest contribution of the person to production.

By the use of sociometric technique in a department the person wielding the greatest influence over his fellow workers could be determined. This information would help in selecting supervisors, foreladies, etc. The same procedure could be used for the selection of labor-management committees and to determine the best leadership in union groups. It would be an intensely interesting study to determine the relationship between absenteeism in a department and the state of the inter-personal relationship in that department.

Our association is particularly interested in the recreational and health needs of women workers. Here again the emphasis should be on the forming of groups based on sociometric data and then the development of activities

in which the group wishes to engage rather than heterogeneous grouping based on isolated activities.

Thus sociometry becomes the means by which the goals of a group work agency can be attained in a truly democratic manner. By placing the emphasis on inter-personal relations the foundations of the structure and the program of an agency are made secure. Upon such a foundation the activities of an agency will become so geared to community needs that the social gains which can be attained will be unlimited.

THE SOCIOMETRIC APPROACH TO ADOLESCENT GROUPINGS

E. DEALTON PARTRIDGE

New Jersey State Teachers College, Montclair

Adolescent behavior and hence much of the personality development during this period is determined by the social relationships in which the individual develops. These social relationships are such that they can be described and measured. The techniques of description and measurement of these relationships have been developed considerably in recent years and have furnished an increased appreciation for the fact that adolescence is a social phenomenon made significant by the kinds of relationships that the young person has with other human beings around him.

There are at least two general approaches to the sociometry of adolescent groupings:

1. The patterns of these groupings in a given community or neighborhood.
2. The internal structure and dynamics of group behavior and how they affect personality development.

These approaches are not mutually exclusive but they do offer a convenient method of approach and will be used in the present treatment.

Grouping Patterns

Adults who are interested in developing effective educational or social programs for adolescents must take into consideration the social patterns which exist among the youth in the *particular* community in question. Too often those who work with youth are content to become familiar with generalizations about young people in other communities and not be familiar with the specific problems in their own neighborhood. There is value, of course, in knowing what studies have shown about adolescents in Middletown, Chicago or Jacksons Corners but one should constantly remember that no two communities are exactly alike and hence that the social forces converging upon adolescents are never exactly the same in any two neighborhoods or any two communities. Sociometry, then, is a technique that every worker with adolescents should understand and be able to apply in specific situations.

Thorndike demonstrated clearly in his study of American cities how much they differ among themselves in such important respects as provisions for education, health, recreation. In some communities the opportunity for pursuit of constructive activities is great, in other communities almost nil. To one who is familiar with adolescent social groupings it is not difficult to

see the way in which lack of play space, for example, influences the formation and behavior of boys' gangs. Thrasher has shown that gangs are a phenomenon of what he calls "interstitial areas" . . . areas in between where there is much social break-down and few institutions or constructive traditions to provide a stabilizing force. Shaw's extensive studies of delinquency areas in Chicago have also shown the way in which the type of community influences basic attitudes, behavior patterns, traditions and social groupings.

High delinquency rates, juvenile gang conflicts, zoot-suit riots, constructive and wholesome play interests are the product of particular combinations of social factors which to a large extent grow out of the group formations and motivations of adolescents. This would suggest that effective community work with young people grows out of an understanding of these social forces.

While the specific objective should be to understand the social relationships and traditions of youth in a given community, there is value in knowing what various studies of adolescent groupings have shown to date. So far the following tendencies seem to emerge in respect to adolescent groupings in contemporary American society:

Spontaneous groupings *do* occur. There is ample evidence available to show that when left to their own devices children of adolescent age form into groups largely for the purpose of pursuing play activity.

Adolescents form group patterns more frequently and more complex than at earlier ages.

During the adolescent period the heterosexual relationships of friends which tend to disappear during middle childhood, come into being and continue into adulthood.

Girls seem to be less disposed, or perhaps less free to form spontaneous groups and pursue free group activities than boys.

Proximity is basic in group formations. Friendships and hence friendship groupings grow out of common participation in such things as school, church, and playground.

Adolescent relationships are likely to be fluid. They change rapidly in terms of individuals and groups. This is the result of a mobile society on the one hand and individual pubertal changes on the other which do not follow the same pattern at least in reference to rapidity of development in all individuals.

Social patterns frequently evolve out of common play interests such as football, baseball or swimming. This to some extent limits the number of members or may encourage the addition of new members in order for play activities to be carried on according to traditional rules.

Spontaneous groups, at least the more obvious and active ones, grow more frequently in areas where there is poor housing, inadequate parental supervision, lack of organized and constructive play activities.

Adolescent groups frequently come into being and are perpetuated through adult antagonism or in response to adult suppression. The predominate activity of such groups is the game of outwitting adults, which the adults define as delinquency.

There is a tendency for adolescents to seek friendship on their own intelligence level, even within the same economic strata. Some studies have shown that friends tend to behave alike and accept the same attitudes. Whether this is a case of birds of a feather flocking together or birds who flock together becoming of a feather is not definitely known.

As children get older their formation of friendship groups tend to spread over a wider and wider area as their freedom of movement is extended. This tendency has been observed too in the selection of mates . . . older persons marrying individuals further from the home neighborhood.

Such then are the general patterns of group formation in typical American communities. In reference to a specific community or neighborhood the following things, among others, would need to be known:

- Areas of most frequent group formation.

- Tendencies toward inter-group conflict.

- Attitudes toward adult-sponsored activities.

- Importance of race, religion, nationality upon group formations.

- Meeting places of groups.

- Parental attitudes toward groups.

- Carry-over of spontaneous group life into formal institutions such as school, church, etc.

Group Dynamics

An adolescent group is more than a collection of individuals. These individuals are tied together by traditions, common attitudes and accepted values that can have a profound effect upon the character development of the individual members.

A closer examination of group structure shows that they differ markedly in such things as cohesiveness, stability and animation. Individual members, too, differ in the status they enjoy with their associates and the influence they exert upon group action. An understanding of these group characteristics is necessary for a full appreciation of adolescent group action.

The struggle for status in the group goes on continually, especially among boys. The prerequisites of status vary according to such basic factors

as age, primary group activity and tradition. If the group spends much time playing baseball then the status of individuals is definitely related to their skill in the game. Skills of this kind are, of course, based upon physical strength and coordination which is also part of the constant physical testing that goes on among adolescent boys in their wrestling, boxing, running. Adolescents who have been together as a group for a period of weeks usually have each other arranged on a scale of physical prowess which is a basic foundation for their scheme of status ratings. This hierarchy of status can be discovered either by skillful observation or by questionnaires using such techniques as the "guess who".

There is a definite relationship, of course, between status in the group and leadership ability. Leaders are those who influence the thoughts and actions of their associates and the person who has the admiration of his peers usually also has the stuff of which leadership is made.

Studies of adolescent leaders have clearly shown that individual differences are such as to insure the presence of one or more persons in every group who can and does exert influence over his associates. Not all groups contain outstanding leaders but a practical definition of leadership does not divide individuals into two classifications as leaders or followers but rather visualizes them as distributed on a scale much like intelligence or height which is to say a continuous distribution from lowest to highest in a group large enough to provide any distribution at all.

Another interesting and significant phase of group structure is the pattern of friendship that exists even within a small group. Not all persons within a given group enjoy the same popularity nor is there complete reciprocity of attachment between individual members. Moreno suggests the existence of a nucleus in the group consisting of individuals who are more closely associated than other members and who have more influence upon group structure and behavior than those on the periphery of the membership.

From these basic patterns emerge some of the significant personality influences during adolescence . . . the struggle for acceptance, the confidence of popularity, the security of bosom companionship . . . all of these are directly related to individual behavior. Indeed, it might be said that individual behavior in most cases cannot be fully understood without a knowledge of these group structure patterns. A plotting of friendship relationships as reported by members of a group or as observed by one familiar with the group makes it possible to recognize these significant patterns and deal with them accordingly.

The internal structure of groups changes rapidly during adolescence. Children who may have played together during childhood find that they no

longer have a basis for companionship as they grow older. Individual differences in physical development are great. Small differences in size and strength are likely to become greater during the pubertal period. Some children enter puberty as early as twelve years of age while others do not acquire these marks of maturity until they near the seventeenth birthday. Naturally these different rates of development have their effect upon friendship groupings and upon the role of the individual in relation to the group.

Not only is group membership fluid during adolescence, but the individual as he moves from one group to another may find himself playing at varying roles. In a group of his own age he enjoys equal status as a member of the inner clique, in an older group he becomes the scapegoat and in one of younger boys a leader. There is a tendency for individuals who are leaders in one group to enjoy this status in others of like age, sex, group activity . . . but a leader who seeks membership in an older or more intelligent group may sacrifice his status as leader.

New members of groups usually must establish themselves over a period of time before they achieve the status their ability and experience entitles them to.

Thus it is that the behavior pattern of an individual as observed by his parents or other adults may change as he moves from one group to another. This emphasizes the need to study an individual in terms of his group relationships and to examine group structure to understand the dynamics that may be at work.

Isolated Individuals

Any treatment of adolescent groupings would not be complete unless some mention is made of the isolated individual who has few, if any, mutual friendship ties with others his own age. Such individuals do exist and the fact of their isolation is usually fundamental in their behavior pattern. Studies of adolescents in a given school or neighborhood will not be complete unless some method of discovering these socially isolated individuals is included. In other words, sociograms of friendship groups only may overlook the individual who does not fit into any of the existing patterns.

Social isolation may be the result of any one of a number of causes. Physical abnormalities that make normal physical activity difficult or impossible or that set the individual apart and make him the target of derision are sometimes the basis of isolation. Other causes may be found in parental dominance, living apart from others of similar age or the lack of the basic elements of personality that make the individual an acceptable member of surrounding groups. This situation can sometimes be remedied by moving

to a new neighborhood or by sending the individual to a camp where he finds it necessary to live intimately with a small group over a period of weeks. It is almost certain that the only way an individual can learn to become an acceptable group member is by practice at it over a period of time.

If social experience is as important as students of adolescence seem to believe, then the individual who has few, if any, lasting friendship ties or associations with groups is missing one of the basic parts of his personality development . . . especially if such experiences are not to be had in the immediate family group.

THE PSYCHODRAMATIC APPROACH TO CLASSROOM PROBLEMS

NAHUM E. SHOOPS

P. S. 157, Brooklyn, New York

Ever since Adam and Eve man has been trying to tell the other fellow what to do. In school educators have sublimated this desire into character or personality training. So through the ages character development appears to have been the aim of education. But can the school help children develop a love of God and of man? In reality, love cannot be taught. It can only be caught from life itself. Have school men worked out the necessary techniques and methods for developing Abou Ben Adhems?

Furthermore, have school men developed any curriculum for character training? In most schools moral influences are accidental, not purposed. But a unified curriculum is insufficient unless it is flexible enough to cover specific needs of different groups.

But even teaching the truths of the curriculum is inadequate. For the truth does not belong to us, is not a part of us until we have learned it from understanding and from life, not from books or precepts. These are some of our problems in personality training.

To our mind psychodramatics, with its emotional and behavior catharsis, provides one adequate answer. Since love and truth can be learned through living and not through precept, pupil acting and discussion of life situations and motives are invaluable in character training. But can teachers "catch on" to the meaning of sociometry and psychodramatics through books and lectures? Is a knowledge of psychodramatics all a teacher needs? Are general principles enough? For we know that wisdom without experience is not an unmitigated blessing. Teachers are the philosophical but practical workmen who understandingly carry out the psychological principles.

They are interested in knowing "What to do" and "How to do it."

Bearing this in mind, we are about to release a series of psychodramatic classroom lessons¹ showing not only "What we did" to diagnose and adjust but "How we did it", and the results achieved. We have repeated snatches of conversation in the classroom. We have shown how we developed the necessary curriculum and adapted it to the needs of our pupils. Thus it became a growing, living thing. It is a description of a fact, not of a possibility. For this work we chose a special class of unadjusted boys. Most of them were confirmed truants. Many were cruel and aggressive. Some were

¹See *Sociometry*, VI: 3, November, 1943.

petty thieves. Others were habitually quarrelsome. A few were infantile. There were even effeminate-acting boys. One was an artist but an isolate.

Of our methods in the psychodramatic training of social feeling and inter-personal relations (1) in this group, we have given some details, as, for example, how we made use of each subject, of school routine, of all instructional activity and of life situations. This class of antagonistic entities got a glimpse of the necessity of mutual aid. Through service they may learn to love. They became a team with pride in useful accomplishments. This story and that of at least two specific cases are told in detail.

In our work (2) with these unadjusted boys we hoped that early in life each would learn "that he is not different from the others; that everyone makes mistakes; that everyone craves security, friendship, love and significance through usefulness. Perhaps he may come to understand that man lives best, who serves best—for both God and man."

BIBLIOGRAPHY

1. Moreno, J. L. "Psychodrama and Mental Catharsis. *Sociometry*, III: 3, 1940.
2. Shoobs, Nahum E. and George Goldberg. *Corrective Treatment for Unadjusted Children*. Harper and Brothers, 1942.

SOCIOMETRY AND ADULT EDUCATION

MARIA ROGERS

Committee on Autonomous Groups, New York City

From the cradle¹ to the grave, human beings cannot be with other human beings, actually or imaginatively, without responding to them. It is an integral part of being alive to respond to other live things. The elementary response of a human being is mere recognition that the other is also alive and human. Once he is recognized as such, he becomes an object towards whom emotions can be and are, directed. Were no emotions exchanged between individuals, no relationships could be established and no social activity could result. There could be no society, in all probability. These emotions: liking, dislike, admiration, fear, love, submissiveness, sympathy, hostility, hate, etc., are the forces which constitute the power-reservoirs, the dynamic resources, of society. It is these forces which sociometry has set itself to measure and to chart.

Adult education is a social movement which has developed in response to the desire of adults for organized knowledge. As a descriptive term, it blankets innumerable techniques, aspirations, theories, enterprises, and experiments. It appears to be attaining a position of prestige in modern society comparable to that of high school and elementary education, and like them it is regarded by its exponents as potentially universal in scope. By common consent, the term does not include individual, self-directed, self-determined study, pursued in solitude or with a private tutor. No. Definitely, adult education is a social activity. Wherever two or three individuals are gathered together for study, there is adult education.

Adult education and sociometry have a logical affinity for one another. As a social activity, adult education is an appropriate field for investigation by sociometrists. That is obvious. But the proposition that the findings of sociometry are of immediate and direct significance for adult educators is not so obvious and needs elucidation.

From the standpoint of the individual, adult education is an intimate, highly personal affair. To choose a subject for study or an activity to enjoy is quite as personal a matter as to choose a pal or a sweetheart. Quite as definitive in its influence on the individual's immediate behavior and his relish for life, and quite as important for his future. All choices represent an investment of emotion. Choice of a pal or a sweetheart may call for more

¹Cf. *Who Shall Survive?* Page 23.

emotion than choice of a sport or a subject for study. (And brings more complications!) The point is that emotion is actually involved and this elementary fact is recognized but seldom by professional adult educators. The reason for the non-recognition, if the reader will pardon a digression, may be that the compulsory school attendance law has made education so universally compulsory that ordinary experience does not include the experience of love of study. Even professors may not be immune from the blight!

The multitudinous activities which make up the adult education movement may be classified in various ways. Some can be listed for illustration. Teaching methods is one, including discussions, forums, lectures, projects, field trips, etc. Institutional auspices is another, including university extension departments, public night schools and community and recreation centers, private "character-building" agencies, adult education councils, churches, and the like. The social goals it is hoped to attain through the activities furnishes another basis for classification: political education, technical education, wider appreciation of the arts, personal development through self-expression in crafts and hobbies, etc. These are all useful as tools to facilitate administration, but they are evolved by professional educators looking *at*—(even *down at*)—adult education from the outside. It appears to the author that a classification based on the *social* (or inter-personal relationship) aspect of adult education would be more illuminating from the philosophical and theoretical standpoint.

Such a classification can be obtained by distinguishing between adult education enterprises on the basis of their *unit of organization*. Two types then emerge. In one of them, the unit of organization is the *group*, composed of friends, or of neighbors, or of individuals who share a common ulterior purpose for which knowledge is sought. These groups undertake recreational or educational programs with associates of their own choosing, at such times and in such places as the groups may select, under such outside influences and leadership as the groups may find congenial. The members determine the pace at which the program is carried out.²

²Sociometrists will experience little difficulty in recognizing this type, but adult educators so uniformly ignore it that further identification by illustration is probably essential. The groups themselves refer to their activities as "meetings of our bunch", a "conference", a "regular date to meet with some people to talk about such-and-such a topic", our study group, or our literary club. Under these designations the activities spell fun; but they are definitely a part of the adult education picture for all that. In addition to such groups, formed more or less deliberately in respect to the criterion of learning, there are also uncountable numbers of other groups formed in respect to criteria such as civic and

The other type of adult education is that in which the unit of organization is the *class*, composed of adults who have responded to blanket invitations broadcast by leaders of educational enterprises to come into classrooms to satisfy their desires for learning. Programs are determined in advance by the administrative authorities. Hours are set by them for beginning and ending discussions and lectures. The pace of learning is dictated by administrative and impersonal considerations. When students and teacher meet in the classroom, all are strangers to each other. This type of adult education is referred to as "formal". Its archetype is the school for children or adolescents, without the compulsory legal component.

Adult education has been described as a *movement*, which implies that it is as yet in flux, that as yet it is not one of the social institutions in our culture.

Whether adult education will become a sub-variety of the institution of education in our culture will depend on a number of factors. Chief among these is the extent and depth of the desire of adults for organized knowledge. The very wide participation in informal adult education activities revealed throughout American history and in present day community studies indicates forcibly that adults in our culture do crave organized knowledge.

Next in importance among the factors which would erect adult education into an institution would be the degree to which our society felt the need for individuals with such knowledge and recognized the necessity of providing opportunities for their development. The remarkable increase within fairly recent years in the number of formal adult education enterprises demonstrates that our society does recognize this need.

The question which adult educators must answer now is whether these formal enterprises are utilizing the most efficient methods possible to perform their function. To answer this question requires consideration of the facts which sociometry is accumulating.

Each human individual is endowed with emotions which he directs

social reform and welfare, hobbies, avocations, public school improvement, and so on, which in order to be effective in achieving their purposes require their members to make efforts to obtain new knowledge. Such efforts are general and a part of common experience. Even adult educators take part in them! People live them rather than label them, reminding one of M. Jourdain's remark in *The Bourgeois Gentleman*: "Why, I've been talking prose all my life without knowing it!" The group type of adult education is like that. People participate in it without necessarily "knowing" it. The purview of professional adult educators must be enlarged to include every group of adults which agrees to meet together more or less regularly to discuss and analyze subjects of common interest in a more or less systematic way, whether or not the members themselves are conscious that they are carrying on informal adult education activities.

towards other human beings. In every situation in which he finds himself, in which other human beings are also involved, he feels for them attraction or repulsion. The others who find themselves with him likewise feel attracted to, or repelled by, him.³ Relations of cooperation or hostility are established. The resultant constellation of forces interchanged between the individual and those around him has been termed by sociometrists the "social atom." It is the smallest constellation of psychological relations in society.⁴ With those for whom he feels attraction or hostility, the individual is "ceaselessly striving towards exchange of emotional states . . . to reach out and exchange emotions."⁵ The importance of this striving for emotional response has been stated in sociological terms by Dr. Ralph Linton: "Certain emotional reactions are so universal that . . . (they) are . . . among the constants which affect the organization of societies. . . . One of the most important of these universal reactions is the individual's need for company and his desire for emotional response from other individuals."⁶

The structures which embody the desire for emotional response are several in number and sociometrists have identified them at all age-levels. Among young children they are simple, consisting up to the eighth year only of association in mutual pairs. Older children and adolescents form triangles and chains as well.⁷ After mental development is more mature, more complicated structures appear, such as mutual attractions between a leader and several other individuals, none of whom may feel attraction for each other; or a constellation in which two dominating individuals are united directly and indirectly through other individuals; or circles, in which each member feels a mutual attraction for two others, etc.⁸ Cooperative action is the overt expression of these structures. Thus from about his eighth year until his death, the individual participates in, or creates with others, a series of such structures and in these he lives and moves and has his being.⁹

³The individual may also feel indifference, but as indifference does not result in positive action, it has no bearing on the present argument.

⁴*Who Shall Survive?* Pages 141-146.

⁵*Ibid.* Page 162.

⁶*The Study of Man*, by Ralph Linton, Appleton-Century, 1937, pages 140-141.

⁷*Who Shall Survive?* Pages 23-27; 58-66.

⁸*Ibid.* Page 114.

⁹Sociometrists have discovered certain individuals who are "isolates," meaning that they do not form *spontaneous* inter-relationships with others. Even these, however, participate socially through institutions and this indirect relationship prevents them from living a completely and uniformly isolated life. The possibility of "clicking" with some other person is always present and keeps alive the individual's hope of eventually joining a group.

He forms them both with individuals related to him by blood and with those who are not. From the sociometric point of view, the distinction is not especially important, but from the sociological it is extremely so. Sociologists have termed the sum total of relationships between a specific number of individuals united by blood or marriage, the "family group."¹⁰ The sum total of relationships between individuals without blood ties, living in proximity, they have distinguished as the "local group."¹¹

The family group and the local group are as old as humanity and were probably present at the sub-human level.¹² Upon these two types of social unit every social order, whatever its superficial characteristics, has been erected. The old Greek myth, had it been sociologically correct, would have represented the earth as upborne, not upon the shoulders of Atlas, but upon those of twins!

Sociology and anthropology have made every student aware of the functional importance of the family. Scientific analysis of the local group, on the contrary, is distressingly meagre.¹³ Nevertheless, every one, student and layman alike, knows as a matter of personal experience how basic this unit is, even today, in the organization of religion, public education, politics, government, and even business. However, formal adult education enterprises are organized and are being operated without due consideration of this basic

¹⁰The sum total of relationships includes repulsion as well as attraction, but this fact is not much stressed in studies of the family!

¹¹The term local group is awkward in a day when transportation to the ends of the earth is incredibly swift. It smacks too concretely of neighborhood. No other is as yet available because sociologists have so far devoted more energy to deploring the influence of modern rapid transportation on neighborhood life than to analyzing the new forms of group life which its impact is forcing—or facilitating. It is to be noted that repulsion also plays its part in the local group, but as we are dealing here only with the social consequences of groups formed through mutual attraction, or in which attraction is the predominant force, and which evolve relationships of cooperation and constructive activity, it is not necessary to elaborate the point. In this phenomenon of forces of repulsion operating in communities, however, may lie the causes of tensions, cleavages, and wars, which are so upsetting to social moralists. Cf. *Who Shall Survive?* Part V.

¹²*The Study of Man*, page 209.

¹³Dr. Linton, (*op. cit.*) says: "For some reason, anthropologists have paid much more attention to the (family) type of grouping and its derivatives than to the (local group), although the (latter) has certainly been as important as the family in the development of social institutions. . . . While an understanding of the local group is vitally necessary to the understanding of any social system, the task of collecting the necessary information does not lead the student into romantic regions! (Exclamation point ours.)

social unit and of the illuminating detailed analyses of it made by sociometrists.

The *class*, which is the approved and standardized unit of organization for adult education enterprises, obviously has no connection whatever with the forces underlying social organization, nor with the forces which motivate social development, such as public opinion, etc. It is the informal type of adult education, with the *group* as its unit of organization, which represents the functioning of these forces. Yet the formal type of adult education has not established vital connections with the informal type.

The norm of activity to which professional adult educators subscribe does not include services for these groups. The result is that by and large, save for a few pioneer experiments,¹⁴ the informal type of adult education is isolated from the enormous educational resources of our society and the formal type is operating in a social vacuum, divorced from the real, the growing, concerns of adult life.

Adults are recalcitrant. They refuse to be regimented into classrooms to pursue organized knowledge if there is any way of avoiding it. The meagre proportion of the population which attends formal classes proves, not that this is a congenial method of gaining knowledge, but rather that this fraction wants it so much as to be willing to surrender the warmth of cooperative effort with known associates in order to acquire it. There is also good ground for assuming that the bulk of registrants in formal adult education classes are "isolates" and if this be true, it indicates that little of the knowledge dispensed in classrooms is put to use by social groups, since isolates, as sociometry has demonstrated, exert no influence in the social networks.

These facts must be taken into account by professional adult educators and changes must be made in their methods. The whole future of the movement may rest upon recognition of these realities. If the situation remains unchanged, it is highly improbable that adult education will ever play an important role in our society. Formal activities will probably not expand much beyond their present scope and informal activities will not reach a much higher state of effectiveness. If a creative reciprocal relationship can be established between the two, however, the result must be progressive development of both and a joint contribution by them to social welfare.

How the vital interplay between the two can be accomplished is not the subject for this paper. As certain experiments have proved it is feasible,

¹⁴The Reading and Discussion Groups of the People's Institute of Brooklyn, directed by Seymour Barnard; the work of some labor unions; of some federations of Parent-Teacher Associations; the Child Study Circles of the old Federation for Child Study, etc., are instances. No complete list has yet been gathered.

the inference here drawn is a wholly practical one. The changes in methods must begin by re-orientation of the students preparing to enter the profession. They must be given fuller knowledge of the social mechanisms operating in society, of the forces which create social groups, of the psychological networks which knit the groups in every community into a psychological whole, of the techniques of developing and fostering leadership without dominating and controlling the leaders, etc. In addition to training students in the techniques of discussion and instruction, training must be given in the techniques of placing educational resources at the disposal of groups created by mutual attractions in respect to the criterion of learning. The shift in orientation will be accomplished, to state it in simple terms, by training the students to think of *groups*, and not, as at present, of (isolated) individuals.

The problem of transmitting the cultural heritage is as old as human social systems. Every society takes its own way of solving it. Ours is faced with a particularly crucial situation, for both the family and the local group, which in the past have been the bearers of culture, are undergoing radical changes of function due to modern technology. That they will survive in some form is to be assumed unless all past human experience is at fault; but we are now in process of building institutions to supplement, or possibly to take over, their function of education. Adult education may prove capable of assuming part of this responsibility if it allies itself with the groups which constitute society. If it does not, and continues on its present course of monastic isolation, it certainly will be unable to do so.

THE CONCEPT OF ROLE-TAKING

THEODORE R. SARBIN

Elgin State Hospital and Northwestern University

As my contribution to this symposium, I should like to report some preliminary observations on the concept of role-taking. My research interest in this general subject is coincident with my work in hypnosis and psychopathology from the standpoint of the social psychologist. Because of space limitations, my comments must perforce be sketchy. At another time they will be more fully expounded and elaborated.

1. *Psychodramatic experiment.* Although universally observed in human societies, the process of role-taking has received only sporadic and perfunctory attention. Only Mead (14) has given this topic its due, as witnessed by his consideration of role-taking as the cornerstone of his system of social psychology. He has offered some challenging hypotheses but no methodology for their experimental verification. It remained for Moreno's development of sociometry (15) and the psychodrama (16) to provide the basis for a method of studying how a role emerges in the personality. The psychodrama, emphasizing spontaneous behavior in unrehearsed, undeliberated social situations, allows the systematic observer to penetrate the penumbra which envelops this aspect of conduct.

The psychodrama as a research tool and as a rational form of psychotherapy has occupied the writer's focus of attention during the past year. From the protocols of psychodramatic experiments, and from observations made in the fields of hypnosis and psychopathology, the writer has formulated some propositions which are designed to illuminate some of the misty corners of the role-taking concept. Before discussing these propositions, however, a brief treatment is given to the notion of role and to an illustration of the role-taking process in a psychodramatic experiment.

The description of role offers few difficulties as witnessed by the success of dramatists in this activity. Playwrights have described roles so that stage directors could instruct actors to behave in certain ways in order to produce a desired audience-response. Actors in turn have been able to stimulate audiences, widely scattered geographically and temporally, to make substantially the same response to a given character, e.g., Hamlet.

Most succinctly, Cottrell defines role as "an internally consistent series of CR's by one member of a social situation which represents the stimulus pattern for the similarly internally consistent series of CR's of the other(s)

..." (5). This definition is satisfactory if we think of CR's not as simple reflexes but rather as organismic reactions, and if we are guided by a theory of cultural relativity in interpreting the phrase "internally consistent."

For our purposes, however, the definition of role is secondary to a careful reporting of the role-taking process. The following excerpts from the writer's protocols may clothe the concept so that it may be better utilized in social theory and research.

Bob is a 17 year old youth who came to Elgin State Hosiptal after having been diagnosed as schizophrenia at a well-known neuropsychiatric institute. He had been given a course of electric shock treatments but was discharged as unimproved with the recommendation that he be committed to a state hospital. During the first six weeks here he appeared listless, withdrawn, diffident, and autistic. He could not be drawn into any group activities.

The diagnostic staff recommended that he be given psychodramatic treatment. From preliminary interviews and personality tests it was inferred that he fantasied himself as a well-adjusted, popular high school boy. The social skills necessary to transform such a fantasy into reality, however, were lacking.

He was invited to participate as a spectator during a psychodramatic session when other patients were presenting their own spontaneous plays. At the close of the period, he was asked to have a short scene prepared for the next session.

At the next session he appeared and reported that he wanted to do a scene in which he was a radio commentator. This turned out to be a very simple action, requiring no supporting characters even though the scenes that he had observed previously had been cast with two to five characters.

During the second psychodramatic session he was asked to appear as an auxiliary ego to another patient, a young man of 23 who had been discharged from the army. In this scene Bob and the other patient were the joint objects of the wrath of a hard boiled sergeant whose orders they had not followed. During this scene Bob imitated many of the actions of the ex-soldier with whom he was sharing an experience. Then he incorporated such actions into his own repertory of behavior equipments. For the third session, Bob prepared an original play in which he was going off to the navy, and which called for several supporting characters, including a girl-friend. While in the previous sessions he had shown signs of consciousness of the audience, in this session (in which members of his family were depicted on the stage) he acted spontaneously and appeared to be absorbed in the action.

During the fourth session he acted as an auxiliary ego taking the role of another boy's father. Here he portrayed, unwittingly, his own father's attitude towards him. As a matter of fact, Bob "stole the show" during this scene. During all these sessions Bob was showing an increasing sociability as evidenced by his coming into the center of the group instead of sitting alone as he had done at first. During periods between scenes, he would now interact with the other patients. This he had not done at first.

During the fifth session Bob was told to take the role of an American high school boy, and act out, with whatever auxiliary characters were necessary, a day in the life of a typical high school boy. During the scenes which followed Bob revealed many of the difficulties of his home but most important was his conversational ability with the director and with others who were taking the roles of other high school boys. It was during these scenes that he showed the greatest animation and very little signs of his withdrawn, autistic self. A number of other similar sessions were subsequently held but these are not reported here.

During his improvement, which was associated in time with the psychodramatic sessions, he became more sociable on the ward, he was more alert, and he put on some weight. Each Sunday, he was taken home for the day by his parents. They reported that prior to the psychodramatic sessions he was no different during his visits from what he had been in the hospital; that is, withdrawn, quiet, unapproachable. Following several weeks of psychodramatic treatment he surprised his parents with his interest in people and events. Without prodding, he would go out and talk with neighbors and acquaintances.

In this psychodramatic treatment, the aim was to build a role for this patient in keeping with his concept of the self. In this case the concept of the self was to a degree capable of fulfillment in reality. The scenes that were selected were designed to give him the opportunity of playing such a role. That the acting was *more* than play-acting is proved by its extrapolation into the social reality of the patient's home community and by his continued improvement in the institution.

2. *Role-taking depends on prior experience.** A person cannot take a role for which he lacks the necessary response patterns. Needless to add, prior experience includes symbolic as well as overt conduct, vicarious as well as genuine behavior. In the psychodramatic experiment mentioned above, the role of a typical high school boy was not foreign to the patient. An older brother as well as classmates had provided a model for the role.

In attempting to take a role for which he lacks certain behavior equipments an individual in any given culture may appear incongruous and even psychopathic. One example from our own culture is that of the *nouveau riche*.

The behavior of conversion hysterics illustrates this proposition. Although the psychoanalyst will stoutly maintain that hysteria is always a consequent of certain psychosexual maladjustments there are other explanations which are more continuous with empirical observations. In studying the case of a patient suffering from a facial tic of ten years duration, the

*See section on the development of roles, pp. 119-121, in J. L. Moreau, "Psychodramatic Treatment of Psychoses," *Sociometry*, 3:115-132, 1940, and section, "A Frame of Reference for the Measurement of Roles," pp. 15-17, in J. L. Moreno, "Psychodramatic Treatment of Marriage Problems," *Sociometry*, 3:1-23, 1940.

question naturally arose as to the choice of pathology. The tic was centered around the left eye and during moments of stress expanded to include most of the facial muscles on the left side. Under hypnoanalysis it was learned that the tic had developed consequent to an unhappy marriage following a disastrous love affair with another woman. This fact did not answer the question, "Why did the patient not develop other disorders, such as vomiting, hypochondriacal symptoms, or a paralysis?" By the method of hypnotic age regression it was learned that at an early age the patient had been struck in the left eye by a baseball bat. Following the accident he had twitching of the ocular muscles for several weeks. This cleared up and did not return again until the frustrations of an unhappy marriage required some solution. Because the organism had had previous experience with eye-twitchings—prior experience of a somatic kind—it was ready to respond this way upon appropriate stimulation. This example illustrates one of the series of cases collected by the author in which an hysterical symptom could be related to pre-existing pathology in the organ or organ system affected.

In practically all cases of hysteria one will find the phenomenon of role-taking. That is to say, the individual takes the role of a person who is sick, who is suffering from some organic malady. We might say that hysterics are the ablest role-takers of all as witnessed by the difficulties sometimes encountered by physicians in determining whether a syndrome is organic or functional.

In the case of hysterically- or hypnotically-induced blisters the fact of prior experience seems a necessary precondition. In reviewing the literature on the hypnotic production of blisters, Pattie (17) remains unimpressed with the validity of such phenomena. Some experiments, however, appear to be well conducted and the production of blisters seems genuine. Because some experimenters failed to obtain positive results, one might conclude with Pattie that such events are not probable. This author would prefer the statement that the subjects had had *no prior experience with vasomotor disorders*. If a subject who had such prior experience were used, the experiment would be more successful. Schilder and Kauders mention a case to support this. "The female patient . . . in whom it was possible to produce the formation of blisters . . . was also excitable in the highest degree in other vasomotor respects" (23).

In another paper, the author has submitted the thesis that hypnosis is a matter of role-taking (24). The act of hypnosis depends upon prior experiences. For example, if a person has had experiences with visions, lapses of memory, trance states, and so on, he is more likely to take the role of a good hypnotic subject than a person who has not had such ex-

periences. As a matter of fact, an experiment conducted by the writer (25) with 50 college students, shows that normal subjects who are deeply hypnotizable have personality traits which resemble those of hysterics. Those who were less hypnotizable had fewer experiences which resembled those of hysterics. This was determined by the use of the Minnesota Multiphasic Schedule recently developed by Hathaway and McKinley (10). This instrument gives an estimate of prior experiences of many kinds, including those which are regarded as hysteroid.

If the author's statement is correct that hypnotic behavior is a form of role-taking, then this illustration is most apt in pointing out the prior-experience factor in all role-taking conduct.

3. *Role-taking is organismic.* Taking a role is more than a group of responses which are essentially verbal or motor in nature. The role involves the total organism.^b In our illustrative case, the role of a well adjusted high school youth called for more adequate eating habits. Result: the patient put on some needed weight. He also became more alert.

Perhaps the best example of this proposition that the author can cite is an experiment conducted with the collaboration of J. H. Lewis (13). In this experiment hypnotized subjects whose gastric hunger contractions were being recorded were told that they were eating certain preferred foods. In short, the subjects were told to take the role of eaters. In response to these instructions, a spontaneous expression of pleasure was noticed upon receiving the fictitious foods: chewing, salivation, and spontaneous expressions of satiation were also noted. Most important was the fact that in deeply hypnotized subjects (the best role-takers) the *stomach contractions stopped in the same manner as if actual food had been ingested*. In this case it was not only the voluntary musculature that responded to the stimulus, but the smooth muscle system as well.

In another study by the same authors (27), functional dysmenorrhea (menstrual cramps) was treated by instructing hypnotized patients in taking the role of a pain-free individual. In 7 out of 10 cases, relief of symptoms was achieved. This improvement has continued, and in one case is of almost two years duration.

The organismic process may go even further and interfere with basic life processes. Devereaux (6), Alexander (1), Rivers (22), and others have provided data which would support the notion that an individual may take the role of a moribund person to the extent that death occurs in the

^bSee discussion of the role of the eater in infancy, p. 56, in Joseph Sargent and Anita M. Uhl, in collaboration with J. L. Moreno, "Normal and Abnormal Characteristics of Performance Patterns," *Sociometry*, 2:38-57, 1939.

absence of known somatic pathology. Of the Papuans and Melanesians, Rivers says: "Men who have offended one whom they believe to have magical powers sicken and die, as the direct result of their belief; and if the process has not gone too far they will recover if they can be convinced that the spell has been removed" (22) [For further demonstrations of organismic reactions, see Dunbar (7).]

4. *Role-taking may occur at different levels of "consciousness"*. That is to say, the organism may behave with various degrees of intimacy in regard to himself as an object in the same way that he does to other stimulus objects. The stage actor, for example, may attach himself to a restricted or to an enlarged range of stimulus objects. In popular language, he might report, "I was almost completely unconscious of the audience." The patient in the first psychodramatic experiment manifested behavior which was characteristic of a high degree of intimacy with the total situation, including the audience. As the patient was "warmed-up" to the role his "consciousness" of the audience disappeared—his attention was directed to the stage action of which he was an integral part.

As another example of this proposition, a classical study by Archer (3) may be cited. He investigated the conduct of experienced, successful stage actors. In taking roles it was learned that all degrees of awareness of self as an object and of others may arise. In some cases the actor takes the role so completely that he plays it before the curtain rises and continues in this vein even after the performance. In other cases the role is played only upon stimulation by contact with other actors on the stage, the audience and so on. Whereas the role-taking of the professional actor is for the most part studied and deliberate, *i.e.* "conscious", the role-taking in daily life is spontaneous, *i.e.* "unconscious", and not often reportable.

In one study reported by the author in collaboration with J. W. Friedlander (9), variations in hypnotic depth were observed. The tests of this variation are those which would measure different levels of "consciousness", or responsiveness to stimulation. In some cases the role was not taken completely and only certain hypnotic tests were successful. Other subjects were deeply hypnotized, seemingly unaware of their responses, and developed amnesia. The latter subjects, in their attempts at taking the role of the hypnotized person, had placed themselves in contact with a greatly restricted range of stimulus events, according to their pre-conceptions of the hypnotic situation (24).

^cSee J. L. Moreno, "The Philosophy of the Moment and the Spontaneity Theatre," section on "The Analytic Difference between the Spontaneity Player and the Dramatic Actor." *Sociometry*, Vol. IV, No. 2, pp. 212-213, 1941.

5. *Role-taking is variable as to the number of different roles in an individual's repertory and also as to the intensity or completeness with which the roles are enacted.* The variations may be described according to (a) intra-individual differences, (b) inter-individual differences, and (c) group differences.

(a) Intra-individual differences in role-taking may be studied from a genetic viewpoint. Role-less at first, the infant, after acquiring his basic reaction patterns, learns first one role, then another, and so on. The observation of one individual over a period of time will show a shifting of roles, according to cultural demands and individual idiosyncrasies. Differential responses to age categories, for example, clearly depict the dropping of one role for another. A full analysis of the genetic aspects of this problem cannot be given here. In another place the author will give such an account, borrowing from the descriptions of Mead and leaning heavily upon the theoretical orientation of J. R. Kantor (12).

Intra-individual variations in role-taking may also be studied cross-sectionally. At any period in a person's development, he may be stimulated to assume different roles depending upon the interbehavioral situation in which he finds himself. A familiar example is the man whose role is characterized by kindness and humility when with his superiors, but who changes to a role whose *motif* is tyranny and despotism when with his wife and children. In our illustrative case, the patient showed first a role resembling a hermit, but upon appropriate stimulation he took the role of a more socialized individual.

Examples of individuals who can shift roles easily are actors, hysterics, and people who are successful in face-to-face relations. Examples of those where variability in the number of roles is extremely limited are the functionally feeble minded, the simple dementia praecox, and certain types of patients with organic brain disease. An example of variability in intensity or completeness of role-taking is the obsessive compulsive neurotic. Such an individual has only a limited number of roles at his command, but the few roles he does play are complete and always according to form. As is well-known, when forced to act outside of his usual role, the obsessive-compulsive becomes exceedingly uncomfortable.

(b) Inter-individual differences in role-taking are also in evidence. The spontaneity tests first created by Moreno (15) have been adapted by the writer and Mrs. Sarbin to show the role-taking aptitudes of unsophisticated subjects to standardized social situations.⁴ This will be reported in

⁴See also section, "Testing in Typical Life-Situations," p. 320-327, in J. L. Moreno, "A Frame of Reference for Testing the Social Investigator," *Sociometry*, 3:317-327, 1940.

subsequent issues of SOCIOMETRY. Suffice it to say that the ability to take roles in such standard situations shows a great degree of inter-individual variability among a group of subjects homogeneous for sex, age, educational background, etc. A similar approach has been taken by Freeman *et al.* (8) in the "stress interview".

In the Friedlander-Sarbin experiment on the depth of hypnosis (9), it was demonstrated that hypnotizability, or ability to take the role of a hypnotized subject, is variable from person to person, but relatively invariable for the same person. The antecedents of this variation are found in the concept of the role with which the subject enters the hypnotic situation, the degree of flexibility as evidenced by prior experience in role-taking, and the directions or suggestion of the hypnotist. The same general antecedents are probably responsible for variation in role-taking in other situations.

(c) Group differences in role-taking may be observed by comparing two different cultures. The status of fatherhood in one culture will demand a certain role whose *motif* is kindness; in another culture the same status will call for a role whose *motif* is neglect and avoidance.

Trance states, which are a form of auto-hypnosis, may also be cited as examples of role-taking. The components of the role, even in this seemingly-strange type of conduct, are culturally-determined. That is to say, even in trance states the influence of prior-experiences, either symbolic or overt, vicarious or genuine, determine the individual's concept of the role he is to play. As Benedict has said, "The tranced individual may come back with communications from the dead describing the minutiae of life in the hereafter, or he may visit the world of the unborn, or get information about coming events. Even in trance the individual holds strictly to the rules and expectations of his culture, and his experience is as locally determined as a marriage rite or an economic exchange" (4).

To summarize the last few paragraphs; role-taking varies as to the number and kind of roles according to intra-individual patterns, inter-individual patterns, and cultural patterns. Not only the quantity of roles is subject to variation, but the quality as well. Some of the probable antecedents of these variations may be found in the pre-conceptions that an individual has of a role, his organismic limitations including the nature and number of prior experiences, and the directions and instructions given him for taking any given role.

6. *Role-taking is a complex form of conduct.* This implies that it cannot be studied with the same techniques as the simple conditioned reflex. The conduct of two fencers interacting cannot be studied with the same methods as the conduct of an individual learning a finger-maze.

The complexity is dealt with through the organism's symbolic reactions to previous experience. The organism, by virtue of its symbolic behavior equipments, learns to organize a large number of part-behaviors into a single concept or *motif*. In the psychodramatic experiment, the *motif* "American high school boy" was utilized. A similar notion has been described by Gordon Allport (2) under the rubric "cardinal trait." For example, the symbol, Machiavellian, condenses a large array of behaviors into small compass. In order for an actor to respond to a director's instruction to be Machiavellian, of course, requires that the actor have certain referents for the word which are similar to the referents of the director. In situations where the individual is on less intimate terms with his stimulus-events than is the actor, the *motif* may appear to be "unconscious".

An experiment is cited to illustrate how complex roles are ordered to some leading *motif* which expresses itself in perceptual organization and response. The experiment was conducted by the writer (26) to determine the extent of personality changes under hypnosis as revealed by the Rorschach Inkblot test. One subject, a college student, female, age 20, reported for the experiment on five successive afternoons. On the first day, she was hypnotized to determine the depth of hypnosis. On the second day, after the hypnosis was induced, she was told, "You are no longer Miss K. You are now Madame Curie, the famous French scientist." Then the Inkblots were administered after which amnesia was suggested and she was awakened. On the third day, after she was hypnotized, she was told, "You are no longer Miss K. You are now Mae West, the famous actress." Again the Inkblots were administered and amnesia induced. On the fourth day, she was hypnotized but given no further instructions. The Inkblots were administered in the usual manner. On the fifth day, the subject was not hypnotized, but allowed to interpret the Inkblots in the waking state.

The responses were analyzed according to content. When responding to Madame Curie stimulus, 21 of a total of 40 responses could be classified under a *motif* of "science" or "scientific". Metals, bunsen burners, litmus papers, thermometers, etc., were "seen" in the meaningless, amorphous Inkblots. When under the Mae West instruction, 22 of a total of 33 responses made by the subject could be classified under the *motif* "costume". Gowns, costumes, shoes, hats, wigs, etc., were perceived in the same blots which the day before had been stimuli for scientific items. When no role was prescribed, 15 out of 35 of the subject's responses were classified under the *motif* "French". French parks, people, monuments, etc., were now seen in the Inkblots. On the final day, when awake and without further suggestion, the subject's responses had no distinguishing *motif*. It was learned later

that the subject had a vocational fixation—she wanted to become an interpreter in the American Embassy in France. The *motif* (or Aufgabe) was self-imposed on the day she gave responses that centered around the concept of things French whereas the role had been suggested on the other two occasions.

This experiment is cited to illustrate the proposition that complex roles may be taken through the condensation of many behaviors into a symbol or *motif* “unconsciously” as in the three hypnotic sessions with Miss K., as well as “consciously” as in the case of an actor becoming Machiavellian.

7. *The concept of role-taking must be considered as coördinate to the concept of the self.* Not to be regarded as a mentalistic entity or substitute for soul or psyche, the self may be described in interbehavioral terms. As stimulus objects may have stimulus functions, so may an organism regard himself as a stimulus object with stimulatory properties. The self is the core of the personality, not dissimilar to William James’ notion of the “I” (11). It may be regarded as a group of perduring, relatively stable, early-established behavior equipments or roles. These are basic reaction systems. Superimposed on these are roles which are introjected from contact with groups.* Mead’s expression “the generalized-other” carries this meaning. In the case of the patient mentioned before the concept of the self was first determined. That this concept was at variance with the patient’s social skills and equipments was quite clear. The aim of the therapy was to provide a role which had some “generalized-other” value.

These concepts are fruitful when applied to the field of psychopathology. One hypothesis involving these concepts may be stated as follows. The conditions for one form of deviate behavior, occupational maladjustment, are fulfilled when the concept of the self cannot be fitted into any pattern of generalized-other roles—i.e., roles which appear with some frequency and regularity in the culture.

The concept of the self was estimated by the use of the Strong Vocational Interest Blank. Although originally designed for use in vocational guidance this instrument has potentialities for tapping more basic patterns of response. The rationale for its use as a measure of the concept of the self is given in a previous paper (29). The scoring of the test is based upon a concept similar to Mead’s “generalized other.” Each item is scored according to whether or not the response agrees with those of a large number of persons in a single occupation. The common responses, likes and dislikes, or the standardizing group (e.g., 327 physicians and surgeons, average age

*The reader is referred here to Mead’s account of the development of the generalized-other concept; see G. H. Mead, *Mind, Self, and Society*, 1935.

40.9) may be safely regarded as a generalized-other concept. The responses of an individual may be considered as the concept of the self. The pattern of responses shows not only the agreement of the subject's responses with those of people in various occupations, but the amount of agreement expressed in letter grades.

When an individual responds to the test items in such a way that his ratings are A and B+ for any factor-analyzed group of occupations, he is said to have a primary pattern in this group of occupations. If he is actually engaged in such an occupation, we may say that the concept of the self is not at variance with the generalized-other concept. What happens when the concept of the self does not agree with the generalized-other role which the individual is expected to adopt? Stated another way, what happens to an individual whose likes and dislikes are similar to those of physicians and who finds himself a ribbon-clerk?

A study reported by the author and Hedwin Anderson (29) attempts to answer such questions. One hundred adults who had some form of occupational dissatisfaction were tested with the Strong Blank. In 76 of the cases, no primary patterns were found which coincided with the present occupation. That is, the concept of the self was at variance with the generalized-other role which he was obliged to assume. Most of these were diagnosed as having made an inappropriate vocational choice. Occupational dissatisfaction, and, in many cases, neurotic traits, as well, was the consequent.⁴

Another hypothesis has to do with individuals whose concept of the self includes no generalized-other role. What may we predict when an individual's concept of the self fits into no generalized-other pattern? The records of a group of 25 neuropsychiatric patients who had filled out the Strong Blank were analyzed. Of these, eight had been diagnosed as schizophrenia or schizoid personality. Of these eight, six (75%) had no primary patterns of vocational interest, that is, no identification with a generalized-other role. Of the remaining 17, diagnosed as psychoneurosis, only 3 (17%) lacked primary patterns. For this small series, such differences are not statistically significant, but are suggestive and call for further research. A project is now under way in which the same type of analysis is being carried on with a large number of diagnosed schizophrenics.

The association of schizophrenic conduct with the absence of role-taking throws some new light on functional psychopathology and might

⁴The writer will not quarrel with a critic who asserts that this test does not sample all the aspects of behavior which make up the self. It gives us an approximation and a chance to compare this approximation with generalized-other roles based on occupational differentiation.

suggest role-therapy as a rational treatment, with the psychodrama as the appropriate vehicle for such treatment. If these findings are verified, they would allow for more valid predictions of psychopathological phenomena in terms of sociometric and social psychological concepts, doing away with outworn but perennially revived demoniacal concepts.

To summarize: Six propositions have been stated and illustrated in an attempt to describe role-taking. It is submitted that role-taking (1) depends upon prior-experience (symbolic or overt), (2) is organismic, (3) takes place with various degrees of intimacy between organism and stimulating conditions ("levels of consciousness"), (4) is variable as to quantity and quality, (5) is a complex form of conduct but can be condensed through symbolic condensation or *motif*, (6) is coördinate with the concept of the self.

REFERENCES

1. Alexander, George. "An Unexplained Death Coexistent with Death Wishes." *Psychosomatic Medicine*, 5:199-194, 1943.
2. Allport, Gordon. *Personality: A Psychological Interpretation*. New York: Holt, 1937.
3. Archer, William. *Masks or Faces?* New York and London: Longmans, Green, 1889.
4. Benedict, Ruth. "Anthropology and the Abnormal." *Jour. General Psychol.*, 10:59-82, 1934.
5. Cottrell, Leonard S., Jr. "The Adjustment of the Individual to His Age and Sex Roles." *Amer. Soc. Review.*, 7:617-627, 1942.
6. Devereaux, George. "Social and Culture Implications of Incest (Mohave)." *Psychoanalytic Quart.*, 8:510-533, 1939.
7. Dunbar, H. Flanders. *Emotions and Bodily Changes*. New York: Columbia Univ. Press, (Rev. Ed.) 1938.
8. Freeman, G. L. et al. "The Stress Interview." *Jour. Abn. & Soc. Psychol.*, 37:427-447, 1942.
9. Friedlander, J. W. & Sarbin, T. R. "The Depth of Hypnosis." *Jour. Abn. & Soc. Psychol.*, 33:453-475, 1938.
10. Hathaway, S. R., and McKinley, J. C. "A Multiphasic Personality Schedule 1: Construction of the Schedule." *Journ. Psychol.*, 10:249-254, 1940.
11. James, Wm. *Psychology (Briefer Course)*. New York: Holt, 1915.
12. Kantor, J. R. *Outline of Social Psychology*. Chicago: Follett & Co., 1929.
13. Lewis, Julian H., and Sarbin, Theodore R. "Studies in Psychosomatics I: The Influence of Hypnotic Stimulation on Gastric Hunger Contractions." *Psychosomatic Med.*, 5:125-131, 1943.
14. Mead, G. H. *Mind, Self, and Society*. Chicago: Univ. of Chicago Press, 1935.

15. Moreno, J. L. *Who Shall Survive?* Washington: Nervous & Mental Diseases Publishing Co., 1934.
16. ———. *Das Stegreiftheater*. Berlin, Gustav Kiepenheuer, 1923.
17. ———. "Psychodramatic Treatment of Psychoses." *Sociometry*, 3:115-132, 1940.
18. ———. "Psychodramatic Treatment of Marriage Problems." *Sociometry*, 3:1-23, 1940.
19. ———. "A Frame of Reference for Testing the Social Investigator." *Sociometry*, 3:317-327, 1940.
20. Pattie, F. A. "The Production of Blisters by Hypnotic Suggestions: A Review." *Jour. Abn. & Soc. Psychol.*, 36:62-72, 1941.
21. Rivers, W. H. R. *Medicine, Magic, and Religion*. New York: Harcourt-Brace, 1924.
22. Schilder, Paul and Kauders, Otto. *Hypnosis*, Washington: Nervous & Mental Disease Publishing Co., 1927.
23. Sarbin, Theodore R. "A Social Psychological Theory of Hypnosis." In preparation.
24. ———. "A Test of Hypnotic Aptitude." In preparation.
25. ———. "Rorschach Patterns under Hypnosis." *Amer. Jour. of Orthopsychiatry*, 11:315-318, 1939.
26. Sarbin, Theodore R., and Lewis, J. H. "The Influence of Hypnotic Suggestion on Functional Dysmenorrhea." In preparation.
27. Sarbin, Theodore R., and Sarbin, Anne. "The Use of Psychodramatic Techniques in Aptitude Testing." Soon to be published.
28. Sarbin, Theodore R., and Anderson, Hedwin. "A Preliminary Study of the Relation of Measured Interest Patterns and Occupational Dissatisfaction." *Educ. and Psychol. Measurement*, 2:23-36, 1942.
29. Sargent, Joseph, and Uhl, Anita M., in collaboration with J. L. Moreno. "Normal and Abnormal Characteristics of Performance Patterns." *Sociometry*, 2:38-57, 1939.

THE PSYCHODRAMA IN LEADERSHIP TRAINING

RONALD LIPPITT

*Research and Statistical Service
Boy Scouts of America*

author.
Lippitt
don

Researches during the last decade (1, 2, 3, 5) have pointed out more clearly than ever before that "average persons" can be equipped with adequate interpersonal relationship skills to effectively assume leadership roles in a variety of life situations in a democratic culture. These same researches are also helping to single out the reasons why many aspects of the traditional approaches to training—in the teachers college, in industry, in the youth movements, etc.—have proven to be so barren of the desired results.

✓ The objective of leadership training is to increase the effectiveness of a leader's *performance* on the job, in his role of leadership responsibility. Training which results in increases of knowledge about "what should be done" or changes in attitudes about "how to do it" can only be counted as successful if there is a reflection of these changes in the actual leadership *behavior* on the job.

The most efficient training-to-effect-behavior would seem to be at-the-elbow training in the real life leadership situation; where the trainer is present as a friendly guide pointing out mistakes, commending for skillful performance, illustrating more effective leadership patterns, encouraging the trainee to try out variations from his typical style of behavior (5).

✓ But although in a given period of training time this on-the-job training probably promises optimum effectiveness, there are several serious problems to its application in most situations: (1) it demands more expenditure of time on the part of the educator or trainer than is possible; (2) in many cases the true life situation of the leader-in-training are not easily accessible to the trainer (e.g. training in skillful parenthood in the home situation); (3) for many trainees the training is a pre-leadership training, before taking over actual responsibilities; (4) in many cases the aspects of an individual's leadership performance which need re-education are so central to his personality structure that a "direct approach" to them in the real life situation only serves to entrench certain ego defenses against change; (5) the real life situation is not an easy place, as a rule, to practice new styles in interpersonal skills; one is playing the game of life "for keeps" in these situations, and thus the atmosphere is not conducive to awkwardly trying out new skills in such a crucial area as one's "style of living with other per-

sons"; (6) and also there is a great waste in the fact that in the usual on-the-job training a whole group of persons cannot benefit at the same time from the counsel of the trainer.

In educational, or re-educational situations where one or several of these difficulties exists what seems to be called for is a leadership training procedure which will: (1) give the trainer an opportunity to observe and diagnose the real life leadership style of each trainee; (2) focus on the leadership problems existing in the life situations of the various trainees, but in a situation within the common life experience of the training group rather than out "on the spot"; (3) make it possible for all members of the group to profit at the same time from the same experiences with their trainer; (4) create an atmosphere of objectivity where individuals can easily look at their own behavior style critically without ego-defensiveness; (5) make it possible to practice new styles of leadership behavior, to discover their effectiveness, and perfect their execution without facing the problem of "playing for keeps"; (6) make it possible for leaders not yet on the job to realistically anticipate and practice for leadership situations in which they will soon be immersed.

One of the most effective techniques the writer has discovered for satisfying these criteria is the utilization of several variations of the role-playing or psychodramatic situation which Moreno has developed most fully in the areas of individual diagnosis and therapy in psychiatric cases (4). Illustrations of some possible uses of this approach as utilized in a leadership training workshop are outlined briefly below:

Psychodramatic Approach to a "Real Life" Leadership Problem of a Member of the Training Group

In the course of a training discussion one of the group members identified a problem which he faced as a professional group worker in a community center. He described it as a problem he was having with an adult study group which seemed to be disintegrating because of an apathetic inability to define a clearcut purpose for their continued existence, although they all verbalized a genuine desire to continue as a group. The trainees agreed to "try out" this situation on the evening of the week devoted to the "role-playing laboratory", with the group worker playing his own role and the rest playing specific roles of study group members in the community center. This psychodramatic experience went through the following steps:

1. "Practice in gaining role-insight"—Inasmuch as the group were to reconstruct an actual group meeting which was to take place in Mr. X's life situation they were given the job of pumping from him all the informa-

briefing
 tion they felt they needed to select and play the role of a specific group member in that actual situation. They learned very quickly by experience that they couldn't ask a few superficial questions and feel at home in their roles as they played them later. Their sensitivity to the important dimensions of such interpersonal situations developed rapidly as they faced the job of acquiring social insight into a real situation by this method.

Miss S: Just mention some characters that are in this group and some of us could volunteer to play those parts. You might give us some idea of their personalities.

Miss F: Rather than personalities, wouldn't it be better for you to give us an idea of their attitudes toward each other and the pattern of participation in the group.

Mr. X: Well, there is the treasurer who is always worried about the finances of the club—he is interested in sources of income but never wants an expenditure.

Mr. A: I'll take that role. But just what is my relationship to you? How do I get along with the rest? Am I an active talker?

Mr. X: Well, first of all . . . etc.

* ✓ 2. "Warming up" to the immediate situation—When the group expressed themselves as satisfied with the definition of the group structure and their individual roles the trainer took the final step in the warm-up:

Trainer: Now then you are ready for the meeting this evening called by Mr. X to discuss this problem of continuing the group. Where are you meeting?

Mr. X: In the home of Mrs. T.

Trainer: Just what kind of a room are we in? How are things arranged?

Mr. X: There is a sofa over here against this wall. . . .

Trainer: O.K., fix the sofa—how about three chairs together—is that all right?

Mr. X: And there is a card table here for me to have my papers on.

Trainer: Here's a table; let's move this over. Is this the right place? Etc.

Trainer: And now we're all set. Do you get here first or last or what?

Mr. X: I get there about last.

Trainer: Then you go out and come in now and the group is yours.

* 3. Working through the leadership situation—Mr. X now proceeded to do the best leadership job he could, *being himself*. The rest of the group did their best to participate *as their roles demanded*. Soon we find them in the middle of one of the major issues of the real life situation in the community center—

Leader: But you feel satisfied if all the activities of the group were just social?

✓ Member 1: If that's all the group wants that's all there should be to it.

Member 2: I thought we had planned to go into more serious activities. card playing is all right, but I think it should be a side interest.

Member 3: We have to get something that will satisfy the majority. They are evidently satisfied by cards and bingo and not by being educated.

Member 4: It's very fine to talk about having dramatics and cultural activities, but people are very busy with the war effort. We can't push programs that are impractical.

Leader: Your idea about war activities seems very important to me. Might we . . . etc.

4. *Evaluation of the leadership role, and the role insight of the other members*—at the end of the psychodramatic situation the group took a few minutes to collect their thinking for a discussion of X's leadership in terms of headings on the blackboard: (1) things I thought were well-done in this leadership job; (2) things I have a question about which the leader did; (3) things the leader did I thought were ineffective leadership. After a very free and fruitful discussion on these topics the trainer placed Mr. X in the role of the analyst by asking for remarks about the adequacy with which the various roles had been played. Valuable light on blind spots in social insight or "role insight" was shed by this discussion, and Mr. X was gaining considerably more understanding of the life situation he was dealing with every day.

5. *Re-playing the situation*—The group agreed they would like to "do the situation over" in the light of their critical analysis. Two procedures promising considerable educational value seemed possible: (a) to do it all over again with the same personnel, allowing the members to ask any more questions they now realized they needed answered to be comfortable in their roles, and giving the leader a chance to try out some new techniques in the light of the analysis by the group; (b) to have a new leader carry through, putting the real leader in the role of someone in the group who it was difficult for him to understand in the real life situation. The second technique was followed. The real leader took the role of the most antagonistic group member and also had the chance to observe another leader playing his role differently.

6. *Final discussion and planning*—The group now discussed the second leader as they had the first, and made a comparative analysis of the two styles of handling the situation. The real leader spontaneously verbalized some of the insights he had gotten into his own pattern of behavior, and indicated some of his thinking about what he was going to try out in doing things differently at his next meeting with his group in the community center.

Psychodramatic Approach to Some Typical Leadership Problems

As the training session developed a number of common leadership problems began to stand out in the group discussions—how to handle the chronic dissenter, how to deal with a scapegoat situation, what to do about the over-dependent member, how to maintain a "democratic atmosphere" in the situation calling for the "expert", how to handle the child who continually disrupts the group, etc. In working on these common problems psychodramatically a rather different method than that described above has been found most effective. In outline form it goes something like this:

1. *Group projection of an illustrative situation*—Rather than take an example from the real life situation of one member of the group, the group as a whole developed the situation which then represented a part of the real life situation of all of them.

Trainer: We've agreed to tackle the problem of the disruptive child. Now just what is the situation?

Member 1: How about a boy who has been sent home for making trouble and the leader is talking things over with him before he can come back in the group.

Member 2: And his father comes with him to talk with the leader.

Member 3: What was he sent home for?

Trainer: What would you say?

Member 3: Climbing a rope in the gym when he should have been in Patrol meeting.

Member 4: And he is older than the other boys in his Patrol and can't afford a uniform.

Etc.

2. *Role assignment*—Various members of the group became quickly identified with one another of the roles which were being developed by the group, and volunteered to play that particular part.

3. *Comparing leaders*—Usually at least two leaders were picked to play the same leadership role in the same situation, one after the other. The second leader would be out of the room during the first working through of the psychodramatic situation. The group would take a few minutes to jot down their notes on the first leader, then the second would come in and take over, with everyone repeating their same roles. A comparative analysis by the group of the two leaders would then follow the second psychodrama.

The Psychodramatic Situation as an Opportunity for Supervisory Interpretation

Earlier in these remarks it was indicated that probably the most efficient training situation was one where the trainer would be literally at the elbow

of the leader, pointing out significant clues in the interpersonal situation, suggesting a different technique for playing his role more effectively, etc. This procedure can be utilized with marked success in the psychodramatic situation. The trainer, or psychodramatic director in Moreno's terminology, can easily carry on an active guidance function, either to the person playing the leader role, or to the whole group. After a little practice he can easily stop the psychodrama long enough to make an interpretation, or make a suggestion for change, without disrupting the spontaneity and reality of the role-playing.

Psychodramatic Approach to the Understanding of the "Frictional Edges" of One's Interpersonal Style

During the type of leadership training which is being described here it is important that the leaders become aware of the fact that there are certain kinds of interpersonal situations and certain kinds of persons who particularly "set them on edge". It is recognized that each leader thus has a certain range of situations where it is particularly difficult for him to be objective and intelligent in his own reactions. It is further recognized that these individual sensitivities are related to the unique background of relationships and experiences which make up each personal history (home life as a child, school days, etc.). One technique of constructively approaching this area of training is:

1. Each trainee makes up a "gripe list" of kinds of behaviors or situations which most "set him on edge".
2. A leadership situation is developed psychodramatically where members of the group take roles typifying these kinds of behaviors—the roles being developed while the person to play the leader is out of the room. He then comes in to play the leader role and is confronted with the variety of interpersonal irritations which have appeared on his "gripe list".
3. The usual group analysis of the leadership follows, with special attention to observations of the group and of the leader himself as to the emergence of his particular sensitivities. A discussion may follow on the possible origin of these particular "frictional edges" to the leadership role which has just been played. Talking in terms of the role rather than directly in terms of the individual results in a surprising lack of ego-defense problems in such a discussion.

Concluding Remarks

In closing the author would like to reiterate that a training process which aims to effect changes in the behavior style of a person cannot effi-

ciently depend upon lectures or other patterns of verbalization such as discussion. Actual experimentation in the desired "ways of behaving" must be provided, in situations where intensive guidance and encouragement is possible, and where the pressures against making mistakes are removed. The utilization of the psychodramatic situation offers one such opportunity in the educational field, just as it does in the area of interpersonal therapy. The illustrations given in this paper indicate several variations of the psychodrama which have proved to be effective in realizing such educational objectives.

BIBLIOGRAPHY

1. Bavelas, Alex: Morale and the training of leaders. Chapter VIII in Civilian Morale. Goodwin Watson, ed. New York: Reynal and Hitchcock, 1942.
2. Lippitt, Ronald: From domination to leadership. Jr. National Assoc. Deans of Women, June, 1943.
3. Moreno, J. L.: *Who Shall Survive?* 1934. Obtainable at Beacon House, Inc., New York.
4. Moreno, J. L.: "Psychodrama and Mental Catharsis." *Sociometry*, III: 3, 1940.
5. Moreno, J. L., and Jennings, Helen H.: "Spontaneity Training: A New Method for Personality Development." *Sociometric Review*, 1936. The *Review* has been superseded by *Sociometry* but copies are obtainable at Beacon House, Inc., New York.

SOCIOMETRY AND DEMOCRACY UNLIMITED

HELEN H. JENNINGS

Sociometric Institute, New York City

Sociometry arose out of an effort to make groups function therapeutically—for the best development of each member (6). In the course of this effort it was disclosed that the psycho-social structure of groups is directly related to the way in which the group functions—that the conduct of individuals thrown into association with one another for whatever given end is explainable in the light of the psycho-social structure of that group (both within itself and towards other groups). In the opinion of the writer this finding merits the greatest possible attention.

In this country democracy rests upon the premise that each individual is inviolable and entitled to a say in his own destiny. It is therefore in point to ask how the needs and desires of every individual can be reconciled with those of his fellow-citizens when they have been found, even by the sociometric work so far carried out, to be frequently incompatible and at war with those of other citizens. It is just the question which must be answered if democracy is to become in fact a practiced manner of living in every department of our life instead of an over-all view towards man and his universe disregarded on many sides in our daily living.

As individual citizens in a greater-democracy-to-be we may each of us take comfort in certain sociometric findings.

First. It has been disclosed that individuals generally seek to relate themselves to other individuals regardless of the response towards them made by other individuals with whom they are in contact (3). Upon this fact one may premise the hypothesis that the human world, basically a social world, is more given to positive responsiveness among its membership than to rejection of contact. Hence, in furthering association among ourselves we are furthering the humanness of our world.

Second. The attitudes of individuals as reflected in their conduct is related to such social relationships as they may have at the time they exhibit these attitudes (7). Hence, attitude changes may be brought about through the social relationships developed in the community and the emergence of leadership predicated upon them. Upon these facts one may premise that the expression of the trends of thought representative of a given community may be fostered in a democratic fashion by allowing the members overtly to display the actual inter-personal choices which characterize their interaction with one another. Thus we must cease to look upon

attitudes as attributes of individuals which bear no correlation with their social relationships, treating such as disparate factors. When the social scientist is satisfied to consider solely the reports of public opinion polls, he is studying data extracted from the social relationships in which they reside and are being produced. By such stop-short methods, the social relationships themselves, the prime movers of social change, are left beyond the ken of the social scientist and altogether unharnessed.

Third. The conflicts characterizing relations between certain racial groups have at least in the instance of Negro and white groups been shown to consist not of a qualitative difference in the response of one group towards the other but merely in quantitative frequency of positive attraction (2). Hence, one may proceed, at least for the present, on the premise that "races" fundamentally differ on the crucial question of extent of desire to associate together—a fact that need not be dismaying considering that this also is characteristic of the attractions between the sexes and also between different age groups (reflecting stratification of interests, etc.). Yet, like children of the same parents, while they have more characteristics in common among themselves than they do in respect to other individuals they are not unrelated to members who are not biologically their more immediate relatives (1).

Fourth. The atmospheres or "social climates" to which a group is subjected (through various kinds of imposed leadership) is directly related to the psycho-social structure which will evolve in that group and to the behavior which will emerge from it (5). Hence, we may take warning that proceeding as if dictatorship methods can be exercised in a theoretically democratic society without altering essentially the psycho-social structure of that society as a whole is proceeding in contradiction to the experimental facts so far uncovered as to the nature of the relation of atmosphere to structure. It is to be noted that leaders in industrial personnel work are recognizing these facts faster than many social scientists (4).

Fifth. When individuals are allowed to group themselves according to the positive choice and rejection they feel towards one another, the structure which results is not merely the genuine psycho-social structure of that community: it is the structure which represents the alignment of the members towards one another *because of* basic needs which find fulfillment through specific other members in that community (3). In such a structure, the over-chosen individuals cannot be described and dismissed as "popular" persons: they are not popular in any superficial sense. They are found to be the protagonists of the needs and desires of large numbers of the popu-

lation—sufficiently effective protagonists to *draw choice on a sociometric criterion* or on several sociometric criteria. They are the members who are most wanted participants and who have earned this choice-status because they act in behalf of others with a sensitivity of response which does not characterize the average individual in the community. They are found to be individuals who see beyond the narrow circumference of their own personal needs into the wide range of needs of their fellow-citizens. They are the individuals who go farthest in relating themselves to others and in translating the needs of others into effective outlets (3). Moreover, when the actual psycho-social structure is allowed to find expression, the community is found to produce many varieties of leadership—varieties which represent the manifold, diverse needs of its many interacting participants (3). Hence, we may premise the hypothesis that groups can find effective representation in leadership when “leadership” is not dictated to them and that the spontaneous or natural leadership which arises is predicated upon the actual needs of the individual members’ interaction with one another in the population as a whole.

The sociometric technique has been demonstrated to strike at the heart of social processes, bringing to the surface crucial evidence on societal phenomena. The evidence yielded is not academic or ecological, useful only for describing one or another aspect of a community; it is capable of being used to interpret the actual dynamics of social change and the avenues along which it is taking place. If we proceed to implement democratic practices by such techniques alone as the public opinion polls offer, we are bypassing very pressing sociometric facts already available and neglecting to extend sociometric practices in the very areas where they are most needed.

In view of all the above evidence (and the premises to which they lead), the writer urges that sociologists cease being satisfied with purely ecological studies and that psychologists set aside exclusively observational techniques.* Let us embark instead upon a course which courageously includes consulting, in their full human dignity the individuals who are the object of our study and concern, to the end that processes of group inter-

*In studying animal societies we observe the animals and wish that we might ask them if our observations are correct. But in the case of the human animal, possessed of language, we persistently observe him and then inform him as to what we have observed about him. Further, we ask him to read what we have observed about other human animals than himself, people in other cultures, and say to him that if he will make himself behave in accordance with the moral lessons to be drawn from our observations, he will, *ipso facto*, become an improvement upon the present species. In the meanwhile, his aspirations as an individual personality with specific needs which require fulfillment through his specific social setting remain unexamined.

action, internal and towards other groups, shall not forever remain a mysterious No Man's Land of conjecture, to which we, as social scientists, need turn humbly for an understanding to the poets and novelists of our culture.

Let us frankly declare a bias—a sociometric bias of confidence in the capacity of the individual to state his needs, trusting him, not negating him, expecting of him that he will be a willing participant with the social scientist in an effort to analyze the psycho-social structure to which he contributes and to build towards a psycho-social structure which will function at the actual plane of his own ingenuity and social insight. We shall then one day have a society in which there will be no cleavage between the overt manifestations of group life and the network of inter-personal relationships motivating the participants. If this can be done in a simple way in a miniature community of some five hundred citizens with the aid of one "social scientist," it can be done throughout the broad society of mankind as a whole with the aid of human engineers in consultation with their population *on a co-participating basis*.

The dominance of one individual over another, of one group over another, of one country over another, we have theoretically disregarded as out of line with man's progress in social betterment and in recognition of man's interdependence with man. I have tried briefly to indicate that there already exists sociometric evidence which gives grounds for a premise that *upon this very interdependence* rests man's possibility to build for himself a social world after the desire of his own heart. The scattered bits of sociometric evidence thus far gathered are but pin points of light on a dark horizon but they can be an augury for the future. I have tried to indicate that even the colossal task of implementing democratic ideals in this country is a task within the possibility of achievement by social scientists. The evidence for this view rests on the findings of careful pieces of sociometric work done in widely scattered groups on widely differing problems. Though it has shown psycho-social structure to be an enormously complex phenomenon, it has also shown it to yield, upon analysis, insight into the ways in which individuals relate themselves to one another and the motivations of their relationships. It seems clear that man has not and cannot without techniques (of a sociometric or other related sorts) provided by the social scientists relate himself to other men in such ways as to reflect his interdependence in genuine fulfillment of his needs. It also seems clear that social scientists have not gotten far when they provided no opportunity for the members of a population to formulate their own goals and to open

up the avenues by which to work towards them. The sociometric method holds out the promise of being adaptable to use for such ends.

A catalist of effective and purposeful social change, representative of the actual needs of all the participants of our society, emerges as one of the prime demands of our time. The sociometric technique may become such a catalist—as it is adapted to weave the diverse and mostly unexpressed basic social urges of human beings into a more effective and affirmative structure of society. This approach of channeling these suppressed social urges into an effective force to build a new world gives us a means which may free us from the fatal conflicts and cleavages which stultify and defeat the positive social expression of men.

Under present conditions of accelerated social change, methods of expediency and casual cut and try are no longer good enough. The goals and directions towards which men could work effectively when societal forces were undergoing changes at a rate many times slower than today enabled the individual then to still feel himself a chooser of the directions his society would take. Today the organization of groups within groups in complexly ramified patterns leaves the individual with a feeling of being robbed of his status as a significantly participating member of society. Any technique which cannot move as fast as the procession of change in man's social institutions *and* in his psycho-social structure of relationships between man and man cannot succeed in mobilizing the resources of man's own social expression. This social expression can and must be harnessed if the needs of men are to come to the surface and be recognized as the very basis of human interdependence. For in these needs implicitly resides the promise of their own fruition.

BIBLIOGRAPHY

1. Cook, Robert C., and Burks, Barbara S. *How Heredity Builds Our Lives*. New York: American Eugenics Society, 1943.
2. Criswell, Joan Henning. "A Sociometric Study of Race Cleavage in the Classroom." *Arch. Psychol.*, No. 235. January, 1939.
3. Jennings, Helen Hall. *Leadership and Isolation*. New York: Longmans, Green, 1943.
4. Kirkpatrick, Forrest H. "Human Engineering Advances." *Radio Age*, I:4:10-11, 29, July, 1942.
5. Lewin, Kurt; Lippitt, Ronald; and White, Ralph K. "Patterns of Aggressive Behavior in Experimentally Created 'Social Climates'." *Jr. of Social Psychology*, 10:271-299, May, 1939. See also Lippitt's unpublished findings.

6. Moreno, J. L. *Who Shall Survive?* Washington, D. C.: Nervous and Mental Disease Publishing Co., 1934.
7. Newcomb, Theodore M. *Personality and Social Change*. New York: Dryden Press, 1943.

SOCIOMETRY AND THE CULTURAL ORDER

J. L. MORENO

Sociometric Institute, New York City

INTRODUCTION*

I have had the good fortune to develop three ideas. The first idea, a study of the godhead,¹ has remained cryptic and misapprehended. The second, a study of man called psychodrama, has aroused some hope that man can train his spontaneity to overcome many of his shortcomings. My third idea, the study of society called sociometry, has given the greatest promise that a measure can be developed for a deeper understanding of society and a key to the treatment of its ills. Many of my friends consider these three ideas one apart from the other. In my own mind, however, all the three ideas are of one piece. One has developed out of the other. The first idea initiates a cannon of the universe, the second a cannon of the individual, the third a cannon of human society. They give three examples of our cultural order, religion, drama and society. They present a set of opposite frameworks based on spontaneity, spontaneity training and sociometry, a trilogy upon which, as I envisaged, a new and more human cultural order can be established.

There is a European half to my literary existence which is practically unknown to the American scholar. They are acquainted only with the latter half which began with my book on the *Group Method* in 1931 and with *Who Shall Survive?* in 1934. *Who Shall Survive?*, which has become for many identical with the beginning of sociometry is actually the end of a development which began in spring, 1914, just before the outbreak of the first world war with my publication *Invitation to a Meeting*. The first European half of my writing existence lasted from 1914 to 1925. These publications are written in German and are the background if not the backbone of the second, "English" half of my work published in the United States. Most of my European writings² had one common aim: they were a systematic attack upon the framework of our cultural order. Mere analysis of the existing order of values, declaration of new values, seemed to me

*In order to clarify certain issues, throughout this article a number of literal quotations are made from my book *Who Shall Survive?*, *A New Approach to the Problem of Human Interrelations*, Nervous and Mental Disease Publishing Company, Washington, D. C., 1934. Unless otherwise stated the footnote quotations are from this book and the page numbers are added for further reference.

¹*The Words of The Father*, Beacon House Inc., 1941.

²Published by Gustav Kiepenheuer, Berlin.

futile intellectual gestures. My emphasis was upon the process of their realization itself, on methods which do not take the form of categorical imperatives, but which can be brought down to earth and can stand the test of living, to replace the present decaying forms by cultural and social institutions which are more durable and more adequately tailored for modern human needs. A new foundation of social science which is not only "exact," but based upon the actual relations between individuals themselves, was inevitable.

SOCIOMETRY, SCIENCE OF CULT

Sociometry has been attacked by some people who are ignorant of its basic work as a "cult." Psychodrama on the other hand has been called a "movement." I am usually attacked on both grounds, being the instigator of one as well as the other.

Cult is defined as: "The worship of a person or thing; devoted or extravagant homage or admiration."³ Science is defined as: "Knowledge gained and verified by exact observation and correct thinking, especially as methodically formulated and arranged in a rational system."⁴ A reader of *Who Shall Survive?* and SOCIOMETRY can hardly doubt that my concepts and methods meet better the requirements of a science than the meaning of a cult. Indeed, it can be argued that sociometry more than any other social methodology, has set out to do away with cultism.

But cultism can be due to homage to a doctrine, not only to a person or thing. There may be research cults, therapeutic cults, mathematical cults, political cults, the common principle being the sanctity of the doctrine. I never intended to give the impression that there is any concept, method or test in sociometry which is immutable, or that *Who Shall Survive?* is a sacred book. Such an attitude would be contrary to spontaneity theory, to my fight against the cultural conserve and the cultural stereotype, against books and all forms which are considered perfect, final and immutable. Sociometry has been—and should continue to be—a science in evolution, a process in continuous revision, revised by its very fields of application. The fear which comes from mixing the therapeutic and research aspects in sociometry to the disadvantage of the latter is unjustified. Sociometric therapy is useless and impractical unless it is based on scientific group analysis. On the other hand no science of the human group can ever develop unless it is tested on and used by actual human beings. The training of most European born scholars is overloaded with the separation of the theoretical

³Funk & Wagnalls, New Standard Dictionary, 1935.

⁴Ibid.

from the applied, and a careful reader will see that I obediently have always had an eye on systematics. But at this stage of sociometry we should watch against too much awe for theories, abstractions and generalizations although they may appear to be more scientific and far-reaching than a modest sociometric experiment in a classroom. Another remark which has a cultistic flavor is that about Moreno's sociometry, as if it were a territory which I own and which I have investigated exclusively. There cannot be a difference between Moreno sociometry and sociometry. Sociometry would have a triste prognosis if it should never develop beyond the inventions and discoveries which I have made.

There must be a deeper reason for the criticism. It is probably based on a suspicion which academic men have for any person who expounds a theory and at the same time takes active part in its promotion. Our cultural stereotype of the scientist is that of a man who rests in an armchair and thinks, or who works in a laboratory modestly hidden from the world. But I happen to be an active and fighting man besides being a worker. This is a misdemeanor against an old ethical precept—the saint ought not to be his own prophet, the being not his own agent, the scientist not his own promoter. He looks up from his work and becomes a towncrier, easily infested with the impurities of the marketplace. But there is no such sharp division between the two “roles.” After every phase of creativity comes a pause, the role of the producing person may then give place—for the moment—to the rôle of the agent.

It may well be that beneath the clamor against cultism there is a hidden fear of leadership. But the fear of cult should not lead to a denial of leadership. For the leadership process is an inherent part of social living, as borne out by every sociogram. The *non-leader* principle can be just as dangerous as the leader principle. Both are sociometrically unreal. They are extremes, the first leads to anarchy and chaos, the second to compulsion and rigidity.

UNITY OF THE HUMAN GROUP

I cannot better qualify today the significance of sociometry than by quoting the first words with which I introduced *Who Shall Survive?*⁵ “A true therapeutic procedure cannot have less an objective than the whole of mankind. But no adequate therapy can be prescribed as long as mankind is not a unity in some fashion and as long as its organization remains unknown. . . . A number of scant proofs have been uncovered which indicate that such a unity of mankind does exist. Its organization develops and

⁵P. 3. *Social and Organic Unity of Human Society.*

distributes itself in space according to a law of social gravity which seems to be valid for every kind of grouping irrespective of its membership. . . . These tendencies may become apparent on the surface in the relations of individuals or groups of individuals as affinities or disaffinities, as attractions and repulsions. These attractions and repulsions must be related to an index of biological, social and psychological facts, and this index must be detectable, these attractions and repulsions or their derivatives may have a near or distant effect not only upon the immediate participants in the relation, but also upon all other parts of that unity which we call mankind. The relation which exists between the different parts may disclose an order of relationships as highly differentiated as any order found in the rest of the universe."

This statement points out clearly the domain with which sociometry is to be identified and which it intends to explore. It has not arrived at this in an arbitrary manner but after having gathered sufficient evidence and proof that the human group has a characteristic inner organization which cannot be investigated to advantage unless all inter-individual factors are kept in and all *non-individual* factors are kept out. It does not go on with the job by merely proposing a new science of human relations⁶ (how it differs from a science of culture or from a science of history, etc.), and rendering lipservice to it. It goes to work with actual people, entering into actual communities, developing methods and procedures which can be used in actual situations in order to uncover what human relations really are.

The problem is not to determine by a general consensus what sociometry *is* but whether there is a territory, a domain of phenomena, characterized and held together by certain dynamic properties which separate this domain in toto from other domains, as a matter of systematic organization of findings, tools and hypotheses. The question is not whether it would not be so much nicer to throw all the eggs in one basket, and to call all sociology or at least all types of social measurement sociometry, but whether a simple way out is not a regression to the chaos in the social sciences which sociometry tried to overcome. The question is whether the study of inter-individual relations within the human group has brought forth sufficient evidence that there are certain causations in the inter-action of individuals which require careful delineation and demarcation of this special field of science. Progress in science is often made by spading up from a vast unproductive ground a certain specific ground which contains an especially fertile soil. The problem can be put also this way: is it of advantage, for

⁶Von Wiese, "Sociology," pp. 8-22, Oscar Piest, New York, 1941.

the purpose of systematic investigation of human inter-relations that all human inter-action phenomena are studied apart and without inter-mixture of extraneous factors?

It has been often said that in order to predict the inter-action between persons we must discover the principles and laws by which they operate. Sociometry has discovered some of these principles and laws. They have made it certain that the human group has a science-configuration of its own, developing its own causations, regularities and laws which operate with certain independence from extraneous factors comparative to causations, regularities and laws, for instance as in the case of biology. They suggest a unity or common core to all human societies, whatever the character of the culture by which it is dominated. If so, a systematic investigation of the human social structure is of the utmost significance. It is the primary task of the social sciences today, all other tasks being secondary, until these discoveries have been re-tested and verified. *Who Shall Survive?* is more often quoted than carefully read. Therefore I shall repeat here a number of these laws and hypotheses formulated by me on the basis of sociometric evidence.

1) *Sociogenetic Law*⁷

The human social structure develops from an undifferentiated form at the birth level to more and more highly differentiated configurations corresponding to the growth level of the participants. Parallel with the process of social differentiation, a differentiation of *socio-sexual* and *socio-racial* structure takes place within the group. The course of differentiation may differ from one culture to another, from a pre-literate society to a modern society, but a common core of relations and a parallel trend will be found in all of them.

2) *"Reality Test" of Social Configurations*

Human social structures formed by actual people have a characteristic type of organization which differs significantly from structures which are formed by "chance" or by imaginary individuals. This has been proven by experiment, statistical and mathematical analysis. It is the inter-action of the individuals which gives the group its social reality whatever the superindividual and non-human factors which surround them. Their influ-

⁷"Our survey of the development of spontaneous group organizations from year to year of age among children and adolescents appears to indicate the presence of a fundamental 'sociogenetic' law which may well be said to supplement the biogenetic law. Just as the higher animals have evolved from the simplest forms of life, so, it seems, the highest forms of group organization have evolved from the simple ones." P. 65.

ence is of course, not denied, but they cannot operate but via the individual participants. By this measure it is possible to determine the *degree* of reality of social configurations.⁸ Certain social configurations have a structure which places them nearer the chance level, other social configurations have a structure which places them nearer the optimum of cohesion.⁹ In accordance with this hypothesis a group of primates or a group of human infants should rank lower on the scale than for example a group of human adults. The socio-gravitational factor which operates between individuals, drawing them to form *more* positive or negative pair-relations, triangles, quadrangles, polygons, etc., than on chance, I have called "tele"¹⁰—derived from the Greek the meaning is "far" or "distant." It has no relation to "telos" which means the "end" or "purpose."

3) "Reality Test" of Cultural Configurations

A similar test¹¹ has been devised for cultural configurations. The basis for it is the range of roles (cultural atom) individuals have instead of their range of choices. The "choice" sociograms are replaced by "role" sociograms.¹² Role structures formed by "chance" or by imaginary indi-

⁸"It can be concluded that the larger the number of isolated structures in a group organization, the lower is the standard of its integration; that the larger the number of mutual attractions, the higher is the standard of the group's integration; that a large number of mutual attractions is a soil for the finer harmonies; that these harmonies become evident as more complex structures, as chains, triangles, squares, etc.; that, on the other hand, disorganization and disharmony are indicated by a great number of mutual repulsions and of attractions which are rejected." P. 108.

⁹Statistics of Social Configurations, *Sociometry*, Volume 1, part 2, 1938, pp. 372-373.

¹⁰"At a certain point man emancipated himself from the animal not only as a species but also as a *society*. And it is within this society that the most important 'social' organs of man develop," p. 158. "The attractions and repulsions, or the derivatives of these, between individuals, can thus be comprehended as surviving reflections, as a distant, a 'tele' effect of a socio-physiological mechanism. The origin of speech also cannot be comprehended without the assumption of a socio-physiological basis. The innumerable varieties of attractions and repulsions between individuals need a common denominator. A feeling is directed from one individual towards another. It has to be projected into distance. Just as we use the words teleperceptor, telencephalon, telephone, etc., to express action at distance, so to express the simplest unit of feeling transmitted from one individual towards another we use the term tele, 'distant.' The tele concept is introduced by us not for a convenience but due to the pressure of our analytical findings. The subject under investigation is not covered by any of the social and psychological sciences today and sociology is satisfied with the mass approach of a mass." P. 159.

¹¹Unpublished.

¹²See J. L. Moreno, "Psychodramatic Treatment of Marriage Problems," *Sociometry*, Volume 3, Number 1, 1940.

viduals show a type of organization which differs significantly from a role structure formed by actual individuals. Experiments with role emergence (on the psychodrama stage) may mark the beginning of a sociometrically oriented anthropology.

4) *Sociodynamic effect*¹³

Sociograms show a concentration of choice upon a few individuals which reduces by degrees the amount of choice expended towards the rest of the individuals. The contention is that this is a natural phenomenon found in all human groups regardless of their cultural determination. The contention is that the sociodynamic effect underlies the development of leadership and isolation. The further contention is that the sociodynamic effect is underlying unequal distribution of wealth and power. Therefore no fundamental change of our present economic system can be successfully tried and maintained unless some checks and balances are applied to the atomic units of human society.

5) *Social Atom the Smallest Functional Unit of the Human Group*

The human group consists of an intricate web of social atoms. This has been shown by experimental and statistical demonstration. Although there is *no* parallelism in the old organic sense, my early prediction that there are many types of groupings of social atoms, just as there are many types of physiological cells, has been recently confirmed.¹⁴ "Viewing the detailed structure of a community we see the concrete position of every individual in it, also, a nucleus of relations around every individual which is "thicker" around some individuals, "thinner" around others. This nucleus of relations is the smallest social structure in a community, a social atom. From the point of view of a descriptive sociometry, the social atom is a fact, not a concept, just as in anatomy the blood vessel system, for instance, is first of all a descriptive fact. It attained conceptual significance as soon as the study of the development of social atoms suggested that they have an important function in the formation of human society."¹⁵

¹³"We call this process of persistently leaving out a number of persons of a group the sociodynamic effect," p. 75. "This demonstrates what we may call the process of slowing down of interest, the cooling off of emotional expansiveness, the sociodynamic decline of interest. After a certain number of efforts the interest grows fatigued. It reaches extinction of interest in respect to a certain criterion, the sociodynamic limit of a person's expansion, its social entropy," p. 74. (The social spontaneity of an individual gradually fades out.)

¹⁴Helen H. Jennings, *Leadership and Isolation*, Longmans, Green & Co., 1943.

¹⁵See J. L. Moreno, "Sociometry in Relation to Other Social Sciences, *Sociometry*, Volume 1, part 1, 1937, p. 213.

6) *Psychological Currents and Networks*

I contend that psychological currents and networks can be disclosed by sociometric procedures and placed under direct or remote control. "Psychological currents consist of feelings of one group towards another. The current is not produced in each individual apart from the other of the group; it is not ready in everyone only to be added together to result in a sum, as for instance, anger which dominates each individual of the group to the end that the whole group becomes angry as a totality and each of its members equally angry. The contribution of each individual is unequal and the product is not necessarily identical with the single contributions. One or two individuals may contribute more towards determining what feeling is directing the current than the rest. But from the spontaneous interaction of such contrasting contributors currents result if all these contributions have the same direction, that is, if they are related to the same criterion."¹⁶ The existence of psycho-social networks has been demonstrated. They are the river-bed through which psychological currents flow. "The local district or neighborhood is only physically one unit. This analysis shows that it is broken up, not however, into small units, but into parts which have their corresponding parts in other districts and neighborhoods. The local districts are, so to speak, transversed by psychological currents which bind large groups of individuals into units together, irrespective of neighborhood, district, or borough distinctions. These networks are the kitchens of public opinion. It is through these channels that people affect, educate, or disintegrate one another. It is through these networks that suggestion is transmitted. In one part of a community a person has the reputation of honesty; in another part, of dishonesty. Whatever the actual facts may be, this reputation is due to two different networks in which two different opinions about him travel."¹⁷

7) *Law of Social Gravity*

I contend that the sociodynamic effect, the social atom groupings and the psycho-social network formations are manifestations of the same law—the law of social gravity. Another manifestation of this law is the discovery that the strength of social attachments between infants is based on the average distance separating them for an adequate length of time. "The

¹⁶*Who Shall Survive?*, pp. 251-252.

¹⁷Op. cit., pp. 264-265; see also, J. L. Moreno, "Foundations of Sociometry", *Sociometry*, Vol. IV, No. 1, pp. 28-31, 1941 (Sociometric Testings of Rumors). Charles P. Loomis and Dwight Davison, Jr., "Sociometrics and the Role of New Rural Communities", *Sociometry*, Vol. II, No. 1, 1939.

babies were placed in close proximity in the same room in which they were and had been living since birth. The objective of the study was to ascertain what types of structures appear earliest in the evaluation of groups during the first three years of life. The infant-to-infant relations were observed. The point was not whether the reactions of each individual were a really social response or not but primarily if group organization resulted from the cumulative effect of their interaction and what forms it took. The main lines of development may be summarized as follows: a stage of organic isolation from birth on, a group of isolated individuals each fully self-absorbed; a stage of horizontal differentiation of structure from about 20-28 weeks on, the babies begin to react towards each other, the factor of physical proximity and physical distance making respectively for psychological proximity or psychological distance, the "acquaintance" beginning with neighbors first, a horizontal differentiation of structure; a stage of vertical differentiation of structure from about 40-42 weeks on, one or another infant commands disproportionate attention shifting the distribution of emotion within the group from the horizontal to a vertical differentiation of structure, the group which had been up to this point equally "levelled," develops more prominent and less prominent members, a "top" and a "bottom." No one stage appears to function exclusively at any one level: there appears to be a "hangover."¹⁸ A similar analysis is made of free-ranging groups of primates¹⁹ in order to deduce the structure of their groupings. The relationship between physical and psychological proximity on the one hand and physical and psychological distance on the other hand made the use of the term "social gravity" meaningful. It is probable that there are many more manifestations of this law than the ones discovered to date. I contend that the true matrix underlying "the causes of inter-state migration"²⁰ and "the influence of a population at a distance"²¹ is to be found in the microscopic patterns of inter-personal relations described above. What population statistics reveal is a distant irradiation and reflection of the gravitational process

¹⁸*Who Shall Survive?*, pp. 23-24.

¹⁹Unpublished study by Dr. C. R. Carpenter, see also under Announcements in this issue.

²⁰"But a more thorough description and analysis can be made using 1128 sets of facts for 1128 pairs of states, and putting the facts for each pair into two ratios which are related to the attractive force exerted by one state upon the population of the other." E. L. Thorndike, "The Causes of Inter-State Migration," *Sociometry*, Volume 5, Number 4, November, 1942.

²¹"For certain purposes this ratio is a measure of the influence of the given population at a distance." John Q. Stewart, "A Measure of the Influence of Population at a Distance," *Sociometry*, Volume 5, Number 1, February, 1942.

drawing some individuals together and leaving others out. "What is of interest to us is the psychological currents behind these facts, instigating these movements of population. Sociometric evidence may disclose the attractions and repulsions between individuals and between groups and the motives behind these attractions and repulsions. It may indicate that the desire for migration is many times larger than the migration which becomes manifest and towards which parts of the country these potential migrations tend, that only the recognition of the restlessness prevailing in the depths of the population opens the way to a full understanding of migratory movements, and that the economic situation is often only the precipitating factor."²²

8) *Psycho-social Organization and Function of Groups*

It has been demonstrated that psycho-social organization of groups can be accurately determined quantitatively and structurally. It is directly related to the behavior of its membership. It is closely related to the function of leadership which changes its position and power as the structure changes.²³

The eight hypotheses presented above cannot be accepted or rejected as articles of faith. The problem is not whether all social scientists agree with me that there are a number of natural social laws, for instance, a sociogenetic law,²⁴ but that they investigate the matter by experiments of their own, so that we establish a consensus of scientific opinion. If these forms of causation operate within the human group they must be just as verifiable by other than sociometric methods. Existence of a sociogenetic law can be easily examined: Several parallel studies of the evolution of spontaneous grouping from birth level up to the ages of sixteen, one in an Indian village, another in a Russian collectivistic farm, a third among the Australian aborigines, should give comparable or contrary results with tested and re-tested sample studies in the United States. The same scientific attitude must be taken to all other hypotheses named above.

²²*Who Shall Survive?*, pp. 342-343. "The administration of the sociometric test to populations in problem areas, thus revealing the spontaneous trends and potential movements, may lay the ground for a procedure of *guided* migration. Such a procedure could not only unburden urban centers of a surplus of industrial population but also relieve areas from the accumulative effect of emotional tensions." *Op. cit.*, pp. 343-344.

²³See for further elaboration pp. 312-314 in this article.

²⁴Carl C. Taylor, "Discussion of Dr. Charles P. Loomis, paper on Informal Groupings in a Spanish-American Village," *Sociometry*, Volume 4, Number 1, February, 1941.

ONE-WAY AND TWO-WAY RELATIONS IN SOCIOMETRY

1) *The Concept of the Meeting*

There are several dividing lines between sociometric and non-sociometric methodology.

The first dividing line is the distinction between one-way and two-way relations within human social structures. Sociometry deals with all the two-way relations between individuals.²⁵ The one-way relation in itself, that is, separated from the actual or possible responses of other individuals, is outside of the sociometric domain. One million individuals, each treated as a separate monad, each the source of innumerable outgoing relations, add up to a *sum* of individuals, but they do not form a *unit* of people, a group in a sociometric sense. Individuals as isolated organic units plus their one-way projections are study objects of the psychological and the socio-psychological disciplines. They are outside of the sociometric domain. In this sense sociometry separates from its immediate range of research activities all psychology of the single individual, psychometry, psychoanalysis, and the so-called projection techniques. They are sub-fields of psychology. Individuals with their one-way relations and projections are sociometric study objects only if they are viewed and analyzed as fragments or *parts* of a total human social structure.

Stimulated by the occasion of this symposium I re-read my own first writing and discovered that my earliest formulation of this problem was by far the clearest and boldest I ever made. The title of the publication was "Invitation to a Meeting." Its theme was the dilemma of an author (every author) to communicate via a book with a reader (every reader) who is absent from the immediate situation. The disturbing factor was the non-presence of the "other," the socius, from active combat and communication. The remedy for this dilemma was "Invitation to a Meeting," or as I said later, to actualize a "zwischen-menschliche Beziehung"²⁶ or in translation, to consummate an inter-personal relationship. But the German "zwischen-menschlich" and the English "inter-personal" are anaemic notions compared with the living concept of "meeting." They are the end-product after many stages of intellectual distortions and bloodletting for

²⁵"The crucial point of our classification is to define an individual in relation to others, and in the case of groups, always a group in relation to other groups. This is sociometric classification. The approach was not a theoretical scheme but the product of empirical induction growing logically out of our initial precept to discover and control the psychological currents in a given community." P. 80.

²⁶*Die Gottheit als Autor* (The Godhead as Author), page 6, 1918.

the sake of a technical term useful in scientific language. But it is dangerous for scientific men to forget the origin of words, especially of the key words in their own scientific vocabulary. The modern fear of language (semanticism)—instead of compensating for itself by escape into less sensuous and less tangible logical symbols and algebraic formulas—may find a *saner* way out by turning every key word they use back to their *statu nascendi*. We have to watch our step: asceticism and exactitude are worthy aims but we may pay a too heavy price for them if they result in loss of spontaneity and in unproductivity of ideas.

"Meeting" means more than a vague inter-personal relation (*zwischen-menschliche Beziehung*). It means that two or more persons meet, but not only to face one another, but to live and experience each other, as actors each in his own right, not like a "professional" meeting (a case-worker or a physician or a participant observer and their subjects), but a meeting of two people. In a meeting the two persons are there in space, with all their strengths and all their weaknesses, two human actors seething with spontaneity, only partly conscious of their mutual aims. It became clear to me then as it is now to many sociometrists, that only people who meet one another can form a natural group and an actual society of human beings. It is people who meet one another who are the responsible and genuine founders of social living.

The second dividing line between sociometric and non-sociometric methodology is the division between one-way role and two-way role²⁷ relations. From the point of view of a psychoanalyst for instance, a one-way relationship is the cardinal feature of the psychoanalytic situation. There is only one person for whom the role is made to order, the patient. If he would stand up and assume the role of the analyst and fight with him, it would soon bring the meaning of the psychoanalytic situation to absurdity and to an end. But from the point of view of the meeting it would develop into something which is certainly more human and perhaps more salutary than a psychoanalytic situation—into a meeting between two people, each with his various roles and aspirations. It would develop into a dramatic encounter, a phenomenon which with some modifications I later called the psychodramatic situation.²⁸ Looking backward it is now clear that from the idea of the meeting, the conflict between author and reader, reader and listener, husband and wife, each in his "role," it was only a

²⁷See *Sociometry*, Volume IV, Number 2, May 1941, pp. 213-214, and Volume III, Number 1, February 1940, pp. 17 and 20.

²⁸See *Sociometry*, Volume I, part 1, 1937, pp. 21 and 22, 72 and 74.

short step from putting them on a stage on which they can battle their relationship out, unhindered by the threats and anxieties of their real life situation. This is how the idea of the psychodrama was born.

2) *Spontaneity and the Concept of the Doll*

The third dividing line between sociometric and non-sociometric methodology is the emphasis in sociometry upon the *activated* relation between the individual components (members) to the structure and the function of the group, in other words, the emphasis upon their spontaneity and the warming up process between them. There is no durable structure of a group if it does not correspond to its functioning and no function can be adequate if it is not upheld by the initiative and enthusiasm of the individual members.

The idea of the meeting contained the seed of two concepts each at the opposite ends of a scale, the concept of spontaneity and the concept of the doll.²⁹ My reflections were as follows: if the reader is absent from the primary situation, the author can make of him a helpless target—best symbolized by a doll which is exposed to the aggressiveness of a child (it is obvious that in the pre-book era the forerunner of the author, the prophet, could not help but meet his friends or followers face to face). The same is in principle true about millions of radio listeners listening to an author. As in the case of readers, their counter-spontaneity is reduced to a minimum, their opportunity to counter with their own spontaneities is made difficult or impossible.³⁰ It becomes plausible how the idea of spontaneity, that fundamental notion in sociometry, has become sensitized in my mind to an irresistible degree. The doll became the symbol for all human beings who are deprived of their spontaneity or better, who are in a position of being unable to counter with it. Whereas the book had appeared as a representative of what I mean by cultural conserve, the doll, because of its intentional semblance to human beings or humanized animals, represented in "our culture" at least,³¹ a significant function of its sociopathology. Beings, who can be loved and hated in excess, and who cannot love or fight back,

²⁹See *Sociometry*, Volume IV, Number 2, May 1941, pp. 224-225, and Volume II, Number 2, May 1939, pp. 13-14.

³⁰These reflections, when they were originally made, had one principle aim, to clarify the author-reader, orator-listener relationship, etc. They did not intend to "do away" with orators and listeners, just as they did not intend to do away with cultural conserves, like books, etc., or to do away with machine-like beings, with dolls. The aim was to surmount the difficulties by new adjustments to them.

³¹There may have been many cultures without dolls in our sense.

who can be destroyed without murmur, in other words dolls are like individuals who have lost all their spontaneity. This *dead-aliveness* of the doll should become an earnest concern to parents and educators, as we are placing it not into a museum, but into the hands of our children. Dolls become their best comrades, memories to which they return in their adolescent phantasies. Toys such as dolls are inanimate objects and the child can create the roles of master and slave. The toys cannot fight back if and when the child exerts his physical strength by mishandling or destroying the toy. This is contrary to the very principles of democracy. The function of dolls in the early life of children must undergo a revision. I do not wish to warn against their discrete use. Their reckless application cannot be but harmful. Children get used to "easy" spontaneity. But the difficulty can be surmounted. Our homes and nursery schools should replace many of their doll equipments by auxiliary egos, real individuals, who take the "part" of dolls. The individuals portraying doll roles and fantastic situations are trained to reduce their own and permit the child a greater amount of spontaneity than in real situations, but behind the doll playing subject, there is a real, feeling person. The child will learn by the auxiliary ego technique what he cannot learn by the doll playing technique,—that there are limits to the extremes of love just as well as to the extremes of hate.³²

Sociometry would be meaningless and could not be applied to a society of dolls. Every individual doll is isolated from the other. They do not form a social structure. It cannot be explored because it does not exist. In a human society the opposite is true. Because every individual flows over with spontaneity, spontaneity flows between individuals. There is so much social structure that many essential parts cannot be seen. It cannot be explored but in the degree in which the spontaneous interest of its membership is aroused, and it cannot be changed but in the degree in which its participants coöperate in the project.

Organization and Function of Groups

A fourth dividing line between sociometric and non-sociometric methodology is the emphasis upon the psycho-social organization of the group and the way it functions. "Organization and function of a group appear to be closely related. If a home group has an organization which is extremely extroverted, that is, a majority of its members would prefer to live in other groups, the functioning of this home group suffers in its different aspects

³²See "Das Stegreittheater," 1923, translated partly in *Sociometry*, Volume 4, Number 2, May, 1941 (The Philosophy of the Moment and the Spontaneity Theater).

proportionately and characteristically. We studied the various types of disturbances developing in home groups and ascertained to what definite form of group organization a definite aberration in function is potentially related. The same function in a cottage group, for instance, the executing of the necessary housework, is performed with differing efficiency according to the organization of the group, besides other factors. If the majority of the members attach their emotional interest mainly to individuals outside their group, this extroverted organization is a potential condition which may easily release disturbances of this function through lack of precision in work, superficiality of performance, tardiness, etc. If the organization is of the reverse type, introverted, and in addition many of the members reject each other, the same function may show a disturbance of a different nature, as friction and conflict between the members over its execution. On the other hand, an organization in which many members reject the housemother and at the same time attract one another, forming a network against the housemother, may release a different disturbance of the given function. As the accepting of directions from the housemother is essential to the work, out of this last mentioned type of organization frequently results regression in the work executed accompanied by open rebellion."³³

Psycho-social organization and the function of leadership is another factor in "... the influence which leader-individuals are able to exert in large groups. The distribution of power in large groups depends upon the intricate distribution of emotional currents. An individual who is in control and can steer the course of one of these currents can wield an immense potential influence out of all proportion to his immediate following."³⁴ A comparison of sociograms of freely and democratically organized groups with sociograms of autocratically organized groups shows important differences. In the autocratically organized group the "leaders" of the group are chosen by an outside authority and the spontaneous rising of the actual genuine leadership is suppressed. In the Hudson experiment the autocratic organizers were the superintendent and the housemother in each cottage. We compared the overt organization of each group established by rule of thumb with the hidden psychological organization revealed by the test. We saw that the position of the members differed greatly from one organization to the other. The actual leaders were inactive in one and came to the fore in the other. A girl who was in charge of the dormitory and feared because of her power, appeared in the spontaneous

³³*Who Shall Survive?*, pp. 97-98.

³⁴Op. cit., p. 100.

structure isolated and rejected. Another girl who was disliked by the house-mother and isolated by her from the rest appeared in the spontaneous structure as a group leader and a center of many attractions. "The social function of a girl for instance may be that of supervisor of the dormitory, but her psychological function may be that of a housemother pet who is rejected by the members of her group and isolated in it."³⁵ The number of imposed "leaders" are few and remain unchanged as long as the boss is in power, or they are changed more or less arbitrarily. In spontaneously and democratically organized groups the leadership process is set free to express itself. Far more individuals are given a chance to take part in the leadership process and far more have an opportunity to function in leadership positions for a certain time. The fact that a larger number of individuals can take part in the leadership process, makes the struggle for leadership in a democracy far more violent and extensive than in a regimented society. A fear of leadership may suggest checks and balances against leadership altogether—in the name of democracy.

Sociometric findings explain why there are often on the European continent schools in science, the arts and politics each with a strong leader on top. Feudal and autocratic societies encourage this type of structure. Strong leaders of more or less rigidly controlled groups of this kind cannot be easily unseated by spontaneous changes in the group. They maintain their power beyond the sociometric saturation point for their ruling. They provide good soil for cultism. On the North American continent the situation is quite different. A democratically minded society encourages the development of comparatively larger number of sects but leadership is weak, sub-leaders are preferred. Strong leadership does not develop so easily because it has more hindrances to overcome from within—many other egos in the group are pressing for their own leadership position, the group being more spontaneously structured.

Measurement

A fifth dividing line between sociometric and non-sociometric methodology is the emphasis on measurement. The empirical system of two-way relations introduced by sociometry marked a new phase in the development of the social sciences. Therefore methods for measuring two-way relations between individuals did not exist. They had to be invented in accord with requirements of the findings, as there was no model after which to pattern them. Methods of charting have been developed first. The earliest type was

³⁵*Who Shall Survive?*, p. 70.

a combination of an inter-personal and inter-action diagram.³⁶ The second type was the sociogram which can be adjusted to the charting of small groups as well as to that of large groups of individuals.³⁷ In a *primary* sociogram the emotional relations between *individuals* are depicted as revealed by a sociometric test. By means of *secondary* sociograms the two-way relations between *groups* can be charted. A group of individuals may indicate a trend of feeling towards another group of individuals and vice versa, and the second towards a third group of individuals and vice versa. If the primary sociograms of these inter-related groups are known, the analysis of each sociogram gives an index of the socio-atomic configuration of each group which they portray. Each index represents the emotional current dominating a group. A sociogram of these currents portrays the two-way relations of all the groups whose indices have been calculated. On the basis of secondary sociograms tertiary and quartary sociograms can be constructed, involving still larger groups and there is no limit to how far a sociogram can be differentiated so that it can meet the requirements of the smallest and the largest groups alike. The principle of sociogrammatic presentation is that no higher form of a sociogram can be drawn without being based on lower forms, all leading down to the primary sociograms.³⁸ Another notable form of tabulation is the sociometric use of the inter-relation matrix.³⁹ It may well be that the most important contribution to the measurement of two-way relations has been made by our development of a new form of statistics which is able to deal with the material in accord with its requirements—sociometric statistics or statistics of social configurations.⁴⁰

The approach to measurement in sociometry is still in its infancy. The

³⁶See *Das Stegreiftheater*, pp. 81-85, Berlin, 1923.

³⁷See *Application of the Group Method to Classification*, pp. 81-83, showing a number of simple sociograms. See also *Who Shall Survive?* showing primary and secondary sociograms.

³⁸See *Who Shall Survive?* for maps of emotional currents in a community.

³⁹The first inter-relation matrix tabulating *inter-personal relations* has been used in connection with the Hudson research, and shown by Jennings in her article on leadership. The inter-relation matrix presented by Dodd in his Syrian study tabulating the findings from a social distance test is not truly sociometric. However, Dodd has been rendering a great service to sociometric methodology by his further development of the inter-relation matrix, by his extensive study of *Who Shall Survive?*, his systematic analysis of every sociogram, every formula and every tabulation which led him to important theoretical conclusions. See Stuart C. Dodd, "The Interrelation Matrix," *Sociometry*, Volume 3, Number 1, 1940, p. 101, and by the same author, *Dimensions of Society*, Macmillan, 1941.

⁴⁰See "Statistics of Social Configurations," *Sociometry*, Volume 1, part 2, 1938, p. 342, J. L. Moreno and H. H. Jennings.

great interest which these new measurements have aroused is not due to their precision, as they are primitive compared with measurement in other sciences. It is due to the fact that an approach to the measurement of phenomena as inter-personal relations, inter-role relations, emotional currents, spontaneity and creativity is made, which have been considered in the past as outside of the domain of measurement, as phenomena of a higher, qualitative order.

SOCIOMETRIC METHOD

Historical Background of Sociometry

Sociometry started with an approach to a practical situation and a set of provisional principles. But as it traveled from place to place and as its application expanded, its methods had to be modified and its theories had to be revised. It is now in a similar position as the science of geography several centuries ago. There are still huge territories on the globe undiscovered and unexplored by sociometry.

It was during the first World War, between 1915 and 1918, that I witnessed the *statu nascendi* of a community⁴¹ near Vienna and was baffled by the mounting social difficulties within it. In a letter to the Department of the Interior of the Austro-Hungarian Empire I offered a remedy: reorganization of the community on the basis of sociometric analysis. Although visionary in language, the letter gave a bird's eye view of the future of sociometry. It opened up with a description of how a community can be sociometrically tested and its population reshuffled. Then it attempted to predict the evolution of sociometry in three phases, a period of experimentation and research with small groups, application of sociometry to problems of the nation, and to human society as a whole. The development was to be a gradual one and a beginning was to be made with small, simply organized and newly founded communities.

The principle which set sociometry into motion is the twin concept of spontaneity and creativity, not as abstractions but as a function in actual human beings and in their relationships. Applied to social phenomena it made clear that human beings do not behave like dolls, but are endowed in various degrees with initiative and spontaneity. The so-called social structure resulting from the inter-action of two thousand million individuals is not open to perception. It is not "given" like an immense visual configuration—for example like the geographical configuration of the globe, but it is every *moment* submerged and changed by inter-individual factors. It

⁴¹See *Who Shall Survive?*, pp. 17-20.

is in this point that the chief difference lies between sociometry and gestalt theory. Gestalt is not the "first" principle. The whole is not holier than the part. Gestalt is second to the "gestalter," its producer. There is a higher arbiter; a wider frame of reference than the principle of gestalt—the twin principle of creativity and spontaneity, the source of gestalts, of isolated parts as well as of wholes. If there is any primary principle in the mental and social universe, it is found in this twin concept which has its most tangible reality in the interplay between person and person, between person and work. The fact that the gestalt idea is the notion which guides gestalt research accounts for the shortcomings when applied to domains in which the gestalt plays a less important role. In the original contributions the gestalt idea was applied to psychological configurations like melody (Christian v. Ehrenfels) and to visual configurations (Max Wertheimer). Here the gestalts have the deceptive appearance of eternity, they are given, frozen, they have a "conserve" character. But when the gestalt idea moves from suitable fields into the study, for instance, of social phenomena, in other words, when they deal with social configurations, then they have to change their original guide and either openly or tacitly use sociometric concepts. Because now the gestalt is a function of the gestalter, social configurations function as groups of gestalters.

Terms and Definitions

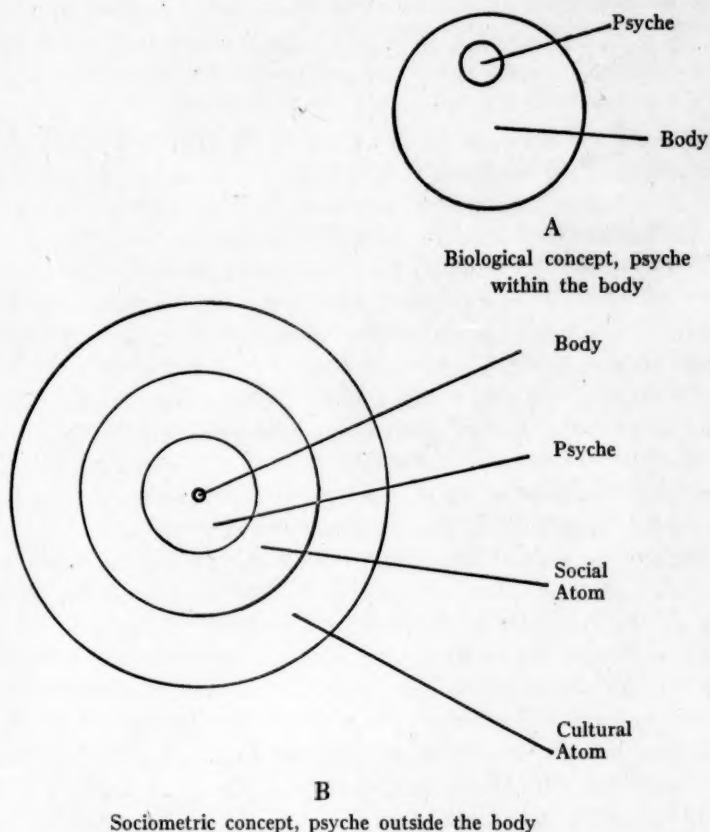
Sociometry, because of the unity of the human group, studies the human group as a totality. It studies every part with a view to the totality and the totality with a view to every part. Definitions have usually a short life, but the earliest definition of sociometry⁴² has quite well covered the different emphases of all active sociometrists. In the first part of the definition, however, a misunderstanding of the phrase "psychological properties" took place. The term psychological is used throughout *Who Shall Survive?* as meaning: relations between individuals and the cumulative effect of these relations. Sociometry as a science stands on two feet, according to the Latin-Greek derivation of the two parts of the term.⁴³ The one foot stands

⁴²See *Psychological Organization of Groups in the Community*, p. 1, Proceedings of the 57th Annual Session of the American Association on Mental Deficiency, Boston, 1933. Also *Who Shall Survive?*, p. 9.

⁴³It appears that the term sociometry is of my coinage. (See *Contemporary Sociological Theories*, Pitirim A. Sorokin, and article by the same author in this issue.) Coste never used the term sociometry, but spoke of sociometrika for the number of people as an index of their power, obviously in an entirely different sense. But even as to the word the difference in phrasing between sociometry and sociometrika is semantically significant. The change from psychological analysis to psychoanalysis marked for instance the formation of a significant term which made history.

on socius, and the other on metrum. Among the social scientists friendly to sociometry three trends can be discerned. There are some who stand on one foot, metrum. The all important thing for them is to *measure* social phenomena. What *kind* of social phenomena is secondary. There are others who stand on the other foot, socius. The all important thing for them is inter-individual relations and their structure. They ignore measurement. But they of course, measure without being conscious of it. Some degree of measurement begins automatically, with the simplest analysis of social phenomena. Then there is the group of true sociometrists. They stand on both feet, on socius and metrum alike. We should exclude from the domain of sociometry all studies of populations in which the individual parts are considered only in a summary, symbolic or mechanical fashion, as for instance, the studies of Thorndike²⁰ and Stewart.²¹ This does not exclude, however, that population research cannot be truly sociometric. It is to be expected that gradually methods will be developed by which the inter-individual core of populations will be dynamically interconnected with the statistical findings on its surface. Efforts in the direction of sociometric population research are under way. We should exclude from sociometry all public opinion research which is based upon the questioning of a number of individuals separate from each other, as for instance the studies of Gallup. This does not mean that public opinion research cannot be truly sociometric. It is to be expected that sociometric opinion polls based upon inter-personal influence in psycho-social networks would supplement or supplant present public opinion polls. Studies which deal with the measurement of social attitudes should be considered as falling outside of the field of sociometry, as for instance, some contributions of Chapin and Sewell. The prominent exponents of the population group, the public opinion group and the social attitude group may measure far more reliably, but *what* they measure is not sociometry. They have in common with sociometrists the emphasis on mensuration, but the socius aspect is as a rule neglected by them. For the population group the actual living structure of inter-individual relations does not come to expression except in a numerical form, an end phase, a dead end phase of the societal process. The socius aspect is somewhat considered by the public opinion group, actual individuals are approached, but as if each would live in a vacuum, as if there would be no connecting bridge between people, and as if public opinion could ever be tapped without touching the bridge which connects them. From the social attitude group some studies have come forth which in themselves are models of how measurement of social attitudes can be made, but they too do not measure what sociometry wants to measure. But

DIAGRAM I
THE PERSON



The biological picture of an individual places the psyche *within* the body (as an epi phenomenon). In the sociometric picture of the individual (person) the psyche appears as outside the body, the body is surrounded by the psyche and the psyche is surrounded by and interwoven into the social and cultural atoms.

"We are used to the notion that feelings emerge within the individual organism and that they become attached more strongly or more weakly to persons or things in the immediate environment. We have been in the habit of thinking not only that these totalities of feelings spring up from the individual organism exclusively, from one of its parts or from the organism as a whole, but that these physical and mental states after having emerged reside forever within this organism. The feeling relation to a person or an object has been called attachment or fixation but these attachments or fixations were considered purely as individual projections. This was in accord with the materialistic concept of the individual organism, with its unity, and, we can perhaps say, with its microscopic independence. . . . This resistance against any attempt to break the sacred unity of the individual has one of its roots in the idea that feelings, emotions, ideas must reside in some structure within which it can emerge or

vanish, and within which it can function or disappear. These feelings, emotions and ideas 'leave' the organism; where then can they reside? When we found that social atoms and networks have a persistent structure and that they develop in a certain order we had extra individual structures—and probably there are many more to be discovered—in which this flow can reside."

See *Sociometry*, Volume 1, part 2, pp. 213-214, 1938.

notwithstanding the basic difference between sociometry and the three groups just discussed—a difference of which a sociometrist should be continuously conscious—close collaboration with them is necessary and desirable. Lundberg⁴⁴ has given an example of how a sociometric technique can be fruitfully combined with Chapin's socio-economic scale in a research program.

The greatest need in the present stage of sociometry is emphasis on *material* knowledge. An illustration of what I mean by material knowledge is the biology of the human organism. Its anatomy, physiology, histology and chemistry, its origin and evolution, had to be developed before the relation between structure and function of every organ could be understood. As this process of investigation in the biological sciences made progress, finer and finer instruments were invented. But had the craving for material knowledge never existed, the instruments would not have been invented, or if invented by chance, they would have been ignored! Similarly, in sociometry we need to know more about the atomic structure of the human group and should not be more concerned about measurement than necessary for the work in progress. Genuine measurement grows hand in hand with growing material knowledge of the subject. Problems of measurement for instance, presented themselves to me when the first findings of sociometric and spontaneity testing required an accurate analysis in order to understand the results and to apply them to a practical situation. I had to invent some means by which the data would be so presented that I or anyone could learn something new about the dynamic structures of the group and their functions. The invention of the sociogram and the inter-personal diagram were imposed upon me by the situation in which the material placed me. It was the sociometric material and not "I" which made certain forms of charting and measurement indispensable. In the course of analysis a number of mathematical problems began to disturb me and—as I am not a mathematician—I went to statisticians⁴⁵ and mathematicians to work these

⁴⁴George A. Lundberg, "Social Attraction-Patterns in a Rural Village, *Sociometry*, Volume 1, part 1, 1937, p. 77, also *Foundations of Sociology*, Macmillan, New York, 1941.

⁴⁵Henry E. Garrett and Paul F. Lazarsfeld.

problems out. As my sociometric studies advanced, it was again the material—in the course of reading hundreds of sociograms I was struck by the great variety of structure—which gave me the idea for an experiment by which the degree of social reality of a structure could be measured. A new branch in statistics⁴⁶ was started with this experiment.⁴⁷ Although obviously superior to me in specialized skill, these problems and ideas did not present themselves to mathematicians. They had not preoccupied themselves with, and had not been inspired by this new field of investigation. This suggests that the specialist is, at least in certain sciences, of auxiliary value only until after the science is established. In this sense even the most ingenious theories of measurement are secondary to new discoveries. Dodd's S-theory for instance, even if it were true, is secondary to his own sociometric work, his contributions to methodology⁴⁸ and to analysis.

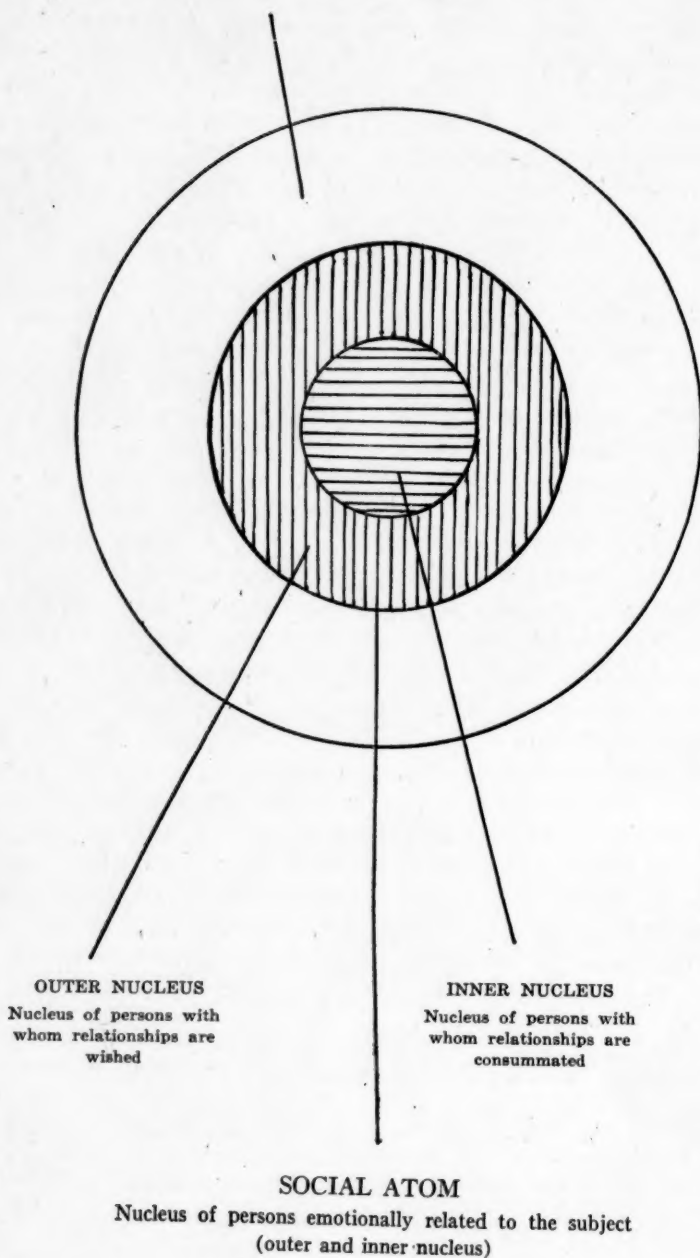
The term sociometry is to be reserved for the meaning which has been widely accepted and which I originally gave to it as a science (see diagram p. 325). The science of sociometry has two sub-fields, one on two-way relations, the other on measurement. The sub-field on measurement is further subdivided in (a) truly sociometric measurement which includes both the socius and the metrum aspect, and (b) social measurement which covers only the metrum aspect and leaves the socius aspect out. A "science" of social measurement is a misconception. It would result to be but a collection of measurements of more or less incompatible social phenomena which are thrown into the same basket because the findings are expressed in mensurational terms. There would be several "sciences" of social measurement, as many as there are different types of social phenomena. The systematic view presented here satisfies both contentions, that of the large group of sociometrists and that of the strict measurists. It should abate the fear of many sociometrists that one-sided emphasis on measurement could slow down the advance of actual sociometric work. On the other hand it meets for instance, Bain's, Chapin's and Sanderson's opinion that all forms of measurement should be considered as one block and should be assigned in toto to the sociometric section of the American Sociological Society. It meets also their opinion that the Sociometric Institute dedicate itself to the

⁴⁶Joan H. Criswell, Helen H. Jennings, J. L. Moreno, Mapheus Smith. J. L. Moreno and Helen Jennings, "Statistics of Social Configurations", *Sociometry*, Vol. I, No. 3-4, 1937.

⁴⁷See George A. Lundberg, *Social Research*, Longmans, Green & Co., New York, 1942.

⁴⁸See Stuart C. Dodd, "Induction, Deduction, and Causation," *Sociometry*, Volume 6, Number 2, p. 119, 1943.

ACQUAINTANCE VOLUME—Acquaintances which are without emotional meaning for the subject.



study of *all* forms of social measurement. This is in accord with its original charter⁴⁹—in the differentiating sense, however, which I am giving to the relationship of sociometry to measurement. The sociometric section of the A.S.S. should present researches which deal with both sociometry proper and with its two sub-fields.⁵⁰ It is probable that in the course of time many present forms of social measurement will become obsolete and that the sociometric approach in measurement will be extended to the range of phenomena to which it can be applied. Then social measurement and sociometric measurement will mean one and the same thing. But even if this comes true, sociometry, the noun, should stand for the name of its science—all sociometric forms of measurement should figure as an undivided sub-field within it.⁵¹

The *policy* of the journal has been therefore to weld the three emphases within sociometry into a unity. Its policy in regard to accepting and refusing papers was decided largely by the actual situation within the field and was not fixed by its executive committee. The journal will continue this policy, however, with greater emphasis upon the role which sociometry is playing within a system of social sciences, as its core.

Tests and Procedures

The size of the human population approximates two billion individuals, but the number of inter-individual associations existing on earth at this moment must be many times larger—because in a sociometric sense a person belongs to many more small groups than the ones visible to the naked eye. Millions of small groups are continuously formed and dissolved. They give to the overt and tangible human society a deeply unconscious and complicated “infra” structure. It is difficult to uncover the latter because of its remoteness from immediate experience and because there is no strict separation between the infra and the overt structures. One is interwoven with the other. At times genuine inter-personal structures can be perceived on the surface, at other times they require extensive socio-microscopic study before they can be discovered. What gives every sociometrically defined

⁴⁹To William L. Moreno goes the distinction of founding the Sociometric Institute. It is due to his vision and energy that sociometry owes the existence of its first permanent organization.

⁵⁰It happens that the programs of the sociometric section in the three years since it is established, has been in fair accord with this view. Papers on sociometry proper, on the sociometric approach in measurement and on social measurement were combined.

⁵¹This view should make an end to the misunderstanding that there is a “wider” and a “narrower” view in sociometry. There are only different emphases within one field.

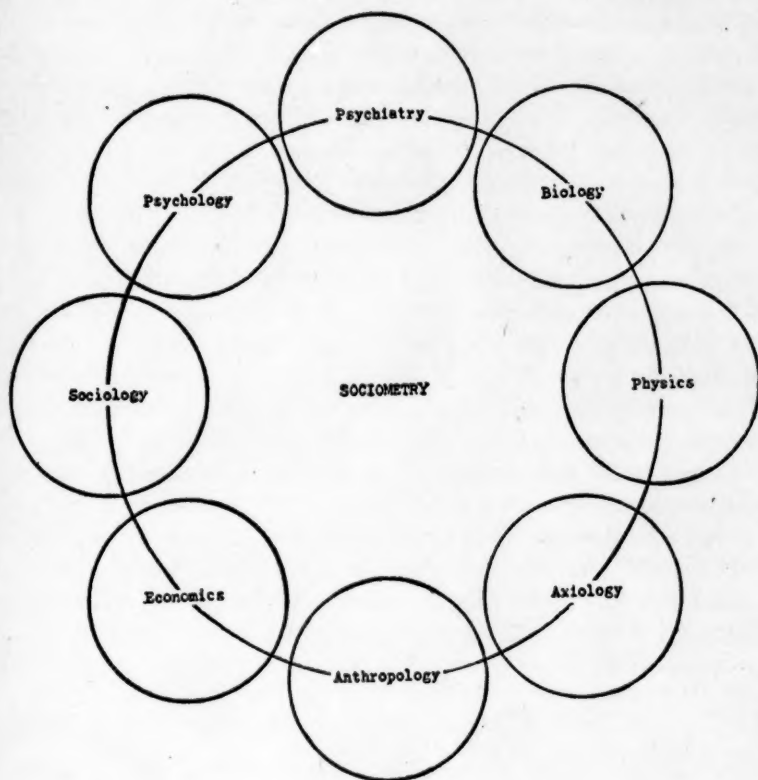
TABLE OF TERMS AND DEFINITIONS

Person	An individual when considered as a social phenomenon, a crossing point of numerous socio-gravitational factors. (See Diagram 1.)
Socius	The associate, the companion, the other fellow.
Social Atom	The smallest social unit within the social group. Every person is positively or negatively related to an indefinite number of socii, who in turn may be related to him positively or negatively. Besides these two-way relations there are one-way relations observable. Some socii are related to the central person and unknown to him, and he may be related to some socii unknown to them. It is this total configuration which comprises the social atom. (See Diagram 2.)
Group	It is a dynamic interpenetration of a number of social atoms, as wholes, or in part only. The socio-atomic organization of a group cannot be separated from its cultural-atomic organization. The social and cultural atom are manifestations of the same social reality.
Community or Settlement	I. The surface structure consists of the inter-relations of its inhabitants in respect to (a) its basic groups (homes, workshops, etc.), (b) locality. II. The underlying (infra) structure consists of a large organization of socio-cultural atoms traversed in all its dimensions by emotional currents, psycho-social and socio-cultural networks.

The term social atom is used for the smallest social unit within the human group. There may be a better term for this newly discovered phenomenon, but it seems to be better than socius. Dodd's plea for uniform terminology in all the sciences is praiseworthy but it does not seem to me that physics has a priority on the term atom. Previous to its use in physics atomos meant "any very small thing." The theory of the physical atom has changed many times since the time of Democritus. The present theory is not final and it may change again. It is of decisive importance in the selection of a term that it expresses meaningfully the phenomenon for which it stands. What I described as social atom appears to be the smallest social structure which has a function in the formation of the human group. It is not impossible that we will learn more about the meaning of atomic structure from sociometric studies than we ever learned from physics.

group its momentum is the *criterion*, the common motive which draws individuals together, spontaneously, for a certain end. That criterion may be at one time as fundamental as a search for home and shelter, as a need for food and sleep, as love and companionship, or as casual as a game of cards. The number of criteria on which groupings are continuously forming go into many thousands.

There are three groups of methods which have been used in sociometry, (a) observational methods, (b) operational methods and (c) action-methods. A number of misunderstandings, largely due to misquotations and incomplete readings of sociometric literature, has accumulated in the course of



SOCIOMETRY

Its Boundaries and Fields of Research

Primary Territory: The Human Group.

Secondary Territory: The Sub-human Groups.

years which I will take up one by one. A widely spread misconception for instance, is that inter-individual⁵² and inter-group relations play at times a *minor* role in social processes. There is—(according to sociometric findings)—no social phenomenon in which the inter-individual and the inter-group process is not at the core of the matter unless it ceases to be a social phenomenon. Another misunderstanding is that sociometry bases its conclusions on the study of “informal friendship patterns.”⁵³ As it happens, studies of friendship in the literal sense of the word have rarely been undertaken by sociometrists, largely because friendship as a criterion is for methodical reasons undesirable. It varies in definition from individual to individual, and it is often a fusion of several criteria.⁵⁴ Sociometric work has centered from the beginning upon testing all the basic collectives of which a community consists. It was particularly interested in such groups which are built around *strong* criteria, indeed, formal and institutional groups were the first and the most rewarding targets, homegroups, workgroups, schoolgroups, cultural groups.⁵⁵ Sociometry started out to enter into every social situation of which a community consists, from the simplest to the most complex, from the most formal to the most informal ones. This was and is the chief driving motive of its enterprise, however large the work yet undone may loom.

Another misunderstanding is that sociometry consists of a single test. As a matter of fact it has introduced *numerous* tests—among others, acquaintance test, sociometric test, spontaneity test, which are able to explore the core of inter-individual relations and supplement one another. But the

⁵²See Dwight Sanderson's discussion in this symposium on page 214.

⁵³See F. Stuart Chapin's "Trends in Sociometrics and Critique," *Sociometry*, Volume 3, No. 3, 1940, p. 245.

⁵⁴In *Who Shall Survive?* this point has been clearly formulated, see p. 16. "If therefore, the inhabitants of a community are asked whom they like or dislike in their community irrespective of any criterion this should not be called sociometric. These likes and dislikes being unrelated to a criterion are not analytically differentiated. Even if such a form of inquiry may at some age level produce similar results as the results gained through our procedure, it should not be called sociometric testing. It does not provide a systematic basis for sociometric research." It is probable that the idea that it is sufficient in a sociometric inquiry to ask to name one's most intimate friends in the community, has been brought about by George A. Lundberg's "Social Attraction Patterns in a Village," *Sociometry*, Volume 1, part 2, 1938, p. 375, as his paper has been widely read by sociologists. But Dr. Lundberg carried out his study in an "open" community. He was aware that the test was incomplete, he just asked as much as the situation permitted.

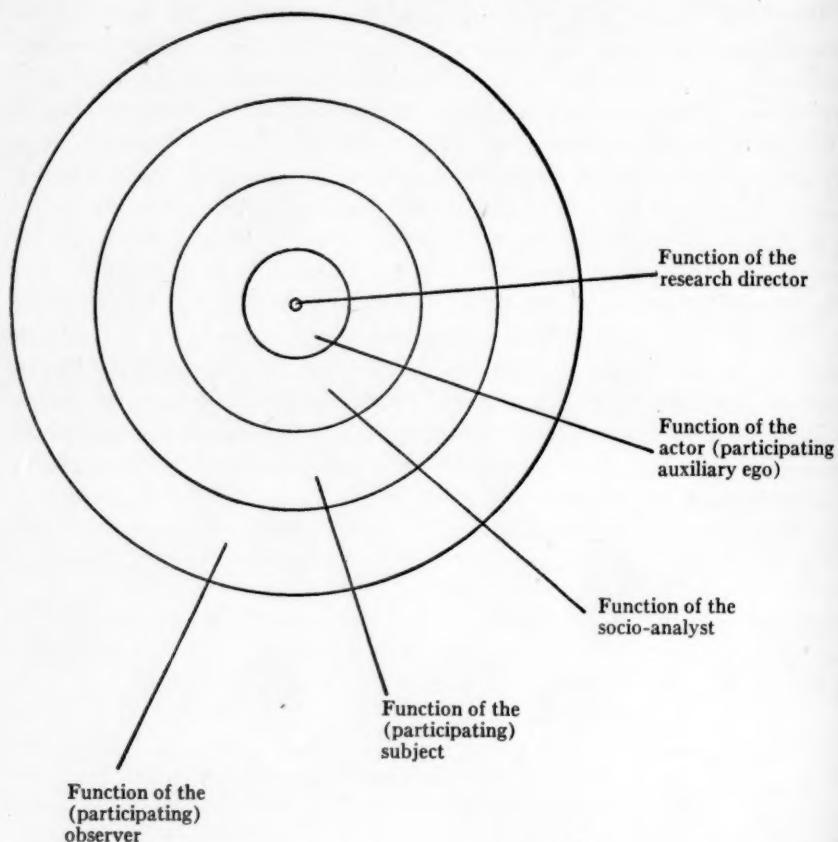
⁵⁵Op. cit., pp. 108-133.

theory of sociometric testing⁵⁶ is primary to the specific samples of procedures in themselves. The theory was so formulated that it should be possible for other investigators to develop similar tests in accord with a set of principles. The view that we sociometrists want to produce a test, which will do for social relations what the intelligence test has tried to accomplish for the measurement of intelligence, is erroneous. I have tried to forge a master key to many doors, to as many tests as the domain of social relations may require for its proper investigation. There are thousands of tests which need to be constructed and our theory of testing properly understood, should provide the *basis* for their development.

I will illustrate the application of the theory of sociometric testing by giving a sample. The requirements of a good sociometric test are: (a) that it reaches and measures two-way relations, (b) that the participants in the situation are drawn to one another by one or more criteria, (c) that a criterion is selected to which the participants are bound to respond, at the moment of the test, with a high degree of spontaneity, (d) that the subjects are *adequately motivated* so that their responses may be sincere, (e) that the criterion selected for testing is strong, enduring and definite and not weak, transitory and indefinite. Let us imagine that the problem is to determine the scientific status of the members of the American Sociological Society, and of members of other leading social science associations. One sociometric procedure would be to investigate *who is quoting whom*, to look up their written records, research papers, books, and so forth. This sociometric test is not a choice technique but a quotation test. It deviates in form from other tests I constructed. The scientists may not know one another face to face, they may know each other only by their recorded works. The sociometric investigator may not have to meet them, at least not in the first stage of the test. This test, although apparently cold and impersonal, fulfills the basic requirements. It considers two-way

⁵⁶"An instrument to measure the amount of organization shown by social groups," p. 11. "Three points are of methodological significance: First, every individual is included as a center of emotional response. Second, this is not an academic reaction. The individual is caught by an emotional interest for a certain practical end he wishes to realize and upon his knowledge that the tester has the authority to put this into practice. Third, the choice is always related to a definite criterion. In the first instance, the criterion is of studying in proximity, actually sitting beside the pupils chosen. In the second, the criterion is of living in proximity, actually within the same house. When this test was applied to work groups, the criterion was working in proximity, actually within the same work unit and collaborating in the function to be performed. Other criteria must be used according to the special function of any group under study," p. 14.

DIAGRAM OF THE SOCIAL INVESTIGATOR IN
PSYCHODRAMATIC RESEARCH



relations, quoting and being quoted, how often and by whom. Quotation is a strong criterion and should help to determine the status of scientists among the membership of scientific societies. Last but not least a great deal of spontaneity enters into the choice of quoting someone, or leaving others out from a "table of references." The investigator would be interested to determine among other things,—whether the subject quotes himself and how often, whether he is quoted by others, and whether he quotes others, positively or negatively; whether he quotes living authors or dead authors, or whether he quotes no one. The quoters and the quotees may be charted by means of sociograms of the scientific societies to which they belong. The sociograms may give clues to the degrees of cohesion between the members of a given society, the affinity or friction between two societies of a similar order. A second step of interviewing key individuals within the sociogram may give further clues to the motivation underlying the quotation and to what extent the quotation is not altogether spontaneous but to what extent distorted by social pressure.

There is practically no social situation which could not be picked at random and which could not be made the center of a significant sociometric project. The investigator has to enter the situation imaginatively, in full rapport with the imaginative trends of the individuals involved, without trying to copy slavishly models of sociometric testing, established by others. There is hardly a non-sociometric method which cannot be turned into a truly sociometric procedure.⁵⁷

Sociometry as a System

In the era of theory and qualitative analysis "system" was perhaps a luxury. In the era of sociometry system becomes a working necessity. In the philosophical era system was an individual matter. In the sociometric era research is by necessity a coöperative enterprise. Therefore the territory to be investigated cannot be arbitrarily determined as to its borderlines, divisions and subdivisions. It must be agreed upon by all the field workers and this is not only a matter of intellectual consensus. It is an objective matter because of the dynamic properties which the domain has

⁵⁷Instead of showing to children, white and colored, the picture of symbolic representatives in various situations (Eugene L. Horowitz and Ruth E. Horowitz, "Development of Social Attitudes in Children," *Sociometry*, Volume 1, part 2, 1938, p. 301) show them the photographs of actual children with whom they are associated, for instance, the photograph of the whole classroom group, of the whole playground group or in other social situations and let choose from them their associates. (The attitude picture test could provide supplementary information.) A projection picture test is changed into a sociometric picture test.

in difference from other domains. The workers must stick to the same terminology, the same language and this not because of a love for a special semantics, but because of the need for a mutual understanding in the course of an expedition in which they share similar dangers and risks. In the pre-sociometric era a certain anarchy in terms, concepts or hypotheses was tolerable because of the transitional state of social science. But with the advent of sociometry specific methods and techniques were constructed, specific aims and definite hypotheses were formulated and so the time when a singular mind crowded all the social knowledge of his time into a singular theory has passed and made place to a time where many singular minds are necessary to combine their efforts to produce a *magnus opus*.

The fear of system is a survival from the individualistic epoch, when it was a sign of greatness that a single man had to do the whole job. In the stage in which the social sciences are today, we have to become system conscious even if it hurts our vanity.

Sociometrists are becoming increasingly system conscious not because they are less spontaneous than the old individualists, but because genuine progress in sociometry requires coördinated effort and discipline, reducing egotistic arbitrariness to a minimum. System formation is not in all stages of a science's development of equal importance. It is unimportant and even hindering progress when a gold mine is suspected in a certain piece of land and searchers are sent out to test the ground. Many tests may then be used, individual ways may be more profitable than standardization and organization of effort. But once a gold mine is tapped, all hands must rush to that point until the new spot is channelized and under full control. After this phase is accomplished new aims may require new methods and then again system formation may be a hindrance rather than a means to progress.

SOCIOMETRY AND AXIOLOGY

Function of the Psychodrama in Sociometry

My first book on spontaneity research⁵⁸ has a similar relation to the development of psychodrama as *Who Shall Survive?* to sociometry. It has marked the turn of two main issues in our psychological and sociological concepts which are still bitterly fought although twenty years have since passed. The turn went from verbal methods to action methods (in which the verbal aspect of behavior is *one* phenomenon only) and later from individual psychological methods to group methods (in which the individual behavior context is taken over but placed in a wider frame of reference).

⁵⁸*Das Stegreiftheater*, 1923.

In psychodramatic procedure action and group methods are at times combined, depending upon the field of application. The book anticipated furthermore the five dividing lines between sociometric and non-sociometric methodology: emphasis on two-way relations between individuals, on two-way relations between roles, the twin concept of spontaneity and creativity, the inter-dependence between function and psycho-social organization, and measurement.⁵⁰ It is amusing to think that the ancient Melpomene should come to the rescue of modern sociology. Of course she had to undergo a radical operation, so that psychodrama, her new offspring, might be well born. But the social investigator had dedicated himself for more than a century to one extreme, the state of passivity, of passive reception, symbolized in the spectator or observer methods. With the advent of sociometry more and more intensive co-experience with the participants in a social situation was demanded from the investigator and he had at last to swing to the other extreme, to the state of full, unlimited activity, to co-experience through action and inter-action, the drama, not the drama as a conventional cultural conserve, but the drama as an experiment in spontaneity research. The psychodrama is able to present the social process in its formative phases, in more dimensions, and more vividly than any other method known. Skillfully tapped, it can become the source of the most intimate knowledge of human relations and its greatest teacher. It added to the tools of the social investigator a new set of methods which can be summed up as *deep* action methods. The dramatic deep action methods are divided into two categories, (a) the psychodrama which deals with inter-personal relations and private ideologies, and (b) *sociodrama* which deals with inter-group relations and with collective ideologies.

"We consider roles and relationships between roles as the most significant development within any specific culture. The pattern of role relations around an individual as their focus is called his cultural atom. Every individual, just as he has a set of friends and a set of enemies,—a social atom—also has a range of roles facing a range of counter-roles. The tangible aspects of what is known as the 'ego' are the roles in which he operates." "A preliminary *norm* (of a role) indicating how most people would behave in a specific situation, was obtained. In this manner a frame of reference is established for this and for other roles. Every subject who comes for study acts in all the roles pertaining to him and his situation can be measured against the established norms which have been standardized with auxiliary egos (on the psychodrama stage). The spontaneous deviations

⁵⁰Das Stegreiftheater, pp. 42, 48, 49, 50, 51.

from the *norm* of a role which are shown by a subject can now be determined and measured."⁶⁰ Sociodramatic procedures are able to externalize and objectify cultural phenomena. An "axionormative"⁶¹ order as it functions within a social system and is used by its participants in evaluating each other and the system, can be portrayed, *tested* and measured. Among the most significant phenomena which recur in practically every psychodramatic session are cultural conserves and cultural stereotypes. The participants fall irresistibly into them, spontaneously as if by tacit understanding. The relationship between the conserve portion and the spontaneity portion within every cultural pattern has been one of the chief problems in spontaneity research.⁶²

Psychodrama—as well as sociodrama—provides all the trappings of a human society in miniature, the people in the audience represent public opinion, the world. The people on the stage represent the protagonists. The director is the research leader—behind his new mask of the director the old masks of the observer, of the analyst, of the participant group member and of the actor are hidden, but still functioning. He is himself a symbol of balanced action, orchestrating, integrating, synthesizing, melting all the participants into a group.

In the course of psychodramatic procedure a revision of the reality function within the social context is noticeable. Many of the social values indispensable in the community look unreal. Incidental and fragmentary events grow out of proportion and take their place. The old reality function

⁶⁰See J. L. Moreno, "Psychodramatic Treatment of Marriage Problems," *Sociometry*, Volume 3, Number 1, 1940.

⁶¹See Florian Znaniecki, "Sociometry and Sociology," p. 225 of this issue. Every sociometrist should read his brilliant and suggestive paper in this symposium. However, Znaniecki's criticism on my concepts, cultural conserve versus *statu nascendi* is not justified by my actual work. I have been not only conscious of the functional interdependence of spontaneity to the cultural conserves, but I have made it the focus of systematic study for the last twenty years. The "cliché" is also one of the great stumbling blocks in spontaneity training. I have given increased emphasis to the *statu nascendi* in societal processes because it has been entirely neglected by sociologists in the past. They have given it at best only theoretical acknowledgment and this rarely. See, "Psychodrama and Mental Catharsis," *Sociometry*, Vol. III, No. 3, 1940.

⁶²One of my first sociometric (or if one prefers, axiometric) scale constructions was a scale evaluating societal and cultural patterns. On one end of the scale were forms with a high degree of spontaneity with no conserve portion or a low degree of it, on the other end of the scale were forms with a high degree of conserve with no spontaneity or a low degree of it. Between the two extremes are placed the social and cultural patterns in which individuals function. See *Das Stegreiftheater*, pp. 37-40. See also "Creativity and the Cultural Conserve," *Sociometry*, Volume 2, Number 2, 1939, p. 1.

becomes an *unreality* function. At first sight it looks as if the psychodramatic function and the reality function would exclude one another. This is in fact only an outward appearance, the stage is not a stage in a theatrical sense, it is a social platform, the actors are not actors but actual people and they do not "act" but present their own selves.⁶³ The plots are not "plays" but their most innerfelt problems. After preliminary sessions the substitutes for people, the auxiliary egos, are often replaced by the actual personages. With them the tangible reality context of their problem in all its functions re-enters the scene. The reality function loses its autonomy, it becomes a "part" of the psychodramatic function in its wider sense of the word.

Objectifying the Social Investigator

A significant contribution has been made by psychodramatic methods to the concept of the social investigator. In observational methods the sociometric investigator is an observer or spectator, he tries to explore among other things, two-way relations, cohesion and disintegration of the group facing him. He tries to come closer and closer to the key individuals and to all individuals of the group, but he never becomes a part of it or identical with them. As soon as he becomes identical with them as a participant, he loses somewhat his function as spectator and the particular objectivity which goes with it. His research gain is that he can take part in an experience which he could never attain as an observer. The observers are no longer outside the group but hidden and integrated in the group, in this sense the function of the observer is never given up by the sociometric

⁶³Psychodrama has no relation to the so-called Stanislavski method. Improvisation in this method is supplementary to the aim of playing a great Romeo or a great King Lear. The element of spontaneity is here to serve the cultural conserve, to revitalize it. The method of improvisation, as a primary principle, to be developed systematically *in spite of* the conserve and the serving it consciously was outside of Stanislavski's domain. A careful reading of his book, *An Actor Prepares*, Theatre Arts Inc., New York, 1936, makes this point clear. He limited the factor of spontaneity to the re-activation of memories loaded with affect. This emphasis tied improvisation to a past experience instead of to the moment. But as we know it was the category of the moment which gave spontaneity work and the psychodrama its fundamental revision and direction. This emphasis upon memories loaded with affect brings Stanislavski in curious relation to Freud. Freud, too, tried to make his patient more spontaneous just as *Stanislavski tried to make his actors more spontaneous in the acting of conserved roles*. Like Stanislavski also Freud tried to evoke the actual experience of the subject but also he preferred intensive experiences of the past to the moment—for a different application however—to the treatment of mental disturbances. Although working in a different domain, Freud and Stanislavski are counterparts.

tester. The operational methods of the sociometrists are now combined with observational methods which receive a new slant. The investigator can shift from the role of the observer to the role of the participant, changing his function as the situation requires. The function of the observer is hidden in the nucleus of the participant investigator. In psychodramatic procedure the concept of the social investigator is further deepened, enlarged and objectified. The function of the observer as well as the function of the participant research leader are now hidden in the nucleus of the research actor (auxiliary ego) and research director. (The auxiliary ego can also be called a *participant* actor, analogous to participant observer.) The auxiliary ego represents in psychodramatic procedure an *absentee person* who is interlocked with the subject-actor in his actual life situation, portraying among other roles, the roles of his father, his mother, her husband, her child. In sociodramatic procedure it represents an *absentee type*, carriers of ideas or representatives of a certain culture, portraying among other roles the roles of a warrior, a priest, a medicine man. The auxiliary ego has two functions: to portray and to explore, in research; to portray and to guide, in therapy. The psychodramatic situation can be seen as an intensified interview situation in which the interviewer is composed of several individual components—the interview-director and his auxiliary egos. The interviewee is composed of the actual and symbolic roles which he brings to expression.

Sociometry and "Sociatry"

I expressly formulated or tacitly implied in the past the following differentiation in my terminology—distinction between research sociometry and applied sociometry, as a sub-field within the latter, with its connotations, sociatry, sociosism, sociotic⁶⁴—parallel to psychiatry—psychosis, psychotic. Differentiating between research spontaneity and therapeutic spontaneity, I designated both as sub-fields of psychodrama.

A nosological approach to the social process begins with its smallest functional entity, the social atom, just as a nosological approach in modern medicine begins with the cell. The social atom has a double role. It plays one role from the point of view of the individual, and another role from the point of view of the group. From the point of view of the individual the role of the social atom has been described as follows: "The *social atom* is that peculiar pattern of inter-personal relations which develops from the

⁶⁴See Stuart C. Dodd, "Sociometry, Delimited, Its Relation to Social Work, Sociology, and the Social Sciences," in this issue, p. 204, and *Who Shall Survive?*, p. 192.

time of human birth. It first contains mother and child. As time goes on, it adds from the persons who come into the child's orbit such persons as are unpleasant or pleasant to him, and vice versa, those to whom he is unpleasant or pleasant. Persons who do not leave any impression, positive or negative, remain outside of the social atom as mere acquaintances. The feeling which correlates two or more individuals has been called *tele*. The social atom is therefore a compound of the *tele* relationships of an individual. As positively or negatively charged persons may leave the individual's social atom and others may enter it, the social atom has a more or less ever-changing constellation."⁶⁵ From the point of view of the group the role of the social atom has been described as follows: "They have an important function in the formation of human society. . . . Whereas certain parts of these social atoms seem to remain buried between the individuals participating, certain parts link themselves with parts of other social atoms and these with parts of other social atoms again, forming complex chains of interrelations which are called, in terms of descriptive sociometry, psychological networks. The older and wider the network spreads the less significant seems to be the individual contribution toward it."⁶⁶ The social atom can be used therefore as a point of reference for nosological classifications, for both individual and group disturbances.⁶⁷ The group on the other hand, appears affected by a phenomenon which has been discovered to operate within the social atom, the tendency towards balance or towards imbalance of its emotional economy. "The imbalances within the social atom and their reflections upon the development of psychological currents and networks give social psychiatry a nosological basis and differentiates it as a discipline from psychiatry proper. Psychiatric concepts as neurosis and psychosis are not applicable to socio-atomic processes. A group of individuals may become *sociotic* and the syndrome producing this condition can be called a *sociosis*."⁶⁸ In treatment situations the theoretically significant distinction between social atom and cultural atom cannot be maintained. In social

⁶⁵See J. L. Moreno, "Psychodramatic Shock Therapy," *Sociometry*, Volume 2, Number 1, 1939, p. 3.

⁶⁶See J. L. Moreno, "Sociometry in Relation to Other Social Sciences," *Sociometry*, Volume 1, part 1, 1937, p. 213.

⁶⁷"The social atom patterns of normal persons of different ages have been studied and found to portray typical variation with development of age. Thus a frame of reference is given with which we can compare the changes within the social atom of individuals afflicted with mental disorders." See J. L. Moreno, "Psychodramatic Shock Therapy," *Sociometry*, Volume 2, Number 1, 1939, p. 29.

⁶⁸J. L. Moreno, *Who Shall Survive?*, p. 192.

reality there is but one atom.⁶⁹ Therefore, if it is found that the prevalence of a certain type of atom with given imbalances in a community is responsible for corresponding imbalances within the related psycho-social networks. The efforts of the sociometrist must be directed to prevent their emergence, to rectify them, or to "crush" *this* type of atom out of existence.

A growing number of sociotherapeutic procedures are now in development but as they are still in an experimental phase, there is confusion because of a lack of knowledge and lack of experience. The forms which I particularly advocated are: group therapy or group psychotherapy, therapeutic forms of psychodrama and sociodrama, spontaneity training, role training and leader training. One distinction may be helpful in the present period of transition until a well rounded system of social therapy has been organized. All group methods which do not base their therapeutic measures upon accurate knowledge of the structure of the group treated should be considered as incomplete and unscientific. The babel of confusion can be brought back to two sources, a treatment of the group *surface*, in form of social activities and mass suggestion with little or no knowledge of the structure-function relations within the group. The other source is that psychoanalysis, the dominating school in individual psychotherapy, is gradually entering the group field without being able to shake off some of their sacred principles which are blocking their progress in the new domain. But as knowledge of psycho-social organization in relation to function will spread, the dilettantes in group therapy will become rarer. As psychoanalysts become more spontaneous and more active, the function of psycho- and sociodrama will become plausible to them. As they turn more group minded, group structure will become just as natural a basis for their group work as the structure of the psyche is in their work with single individuals. It can be anticipated therefore, that when Cottrell and Gallagher will survey again in 1950 the development of the social sciences during the current decade, they will find a synthesis between the different school formations under way.⁷⁰

⁶⁹"From the point of view of the actual situation, the distinction between social and cultural atom is artificial. It is pertinent for construction purposes but it loses its significance within a living community. We must visualize the atom as a configuration of interpersonal relationships in which the attractions and repulsions existing between its constituent members are integrated with the many role relations which operate between them. Every individual in a social atom has a range of roles, and it is these roles which give to each attraction or repulsion its deeper and more differentiated meaning." See J. L. Moreno, "Foundations of Sociometry," *Sociometry*, Volume 4, Number 1, 1941, p. 15.

⁷⁰See Leonard S. Cottrell, Jr., and Ruth Gallagher, *Developments in Social Psychology*, 1930-1940, Beacon House Ins., 1940.

SOCIOMETRY AND GROUP PSYCHOTHERAPY

My book on group method⁷¹ has a similar relation to the development of group psychotherapy as my book on *The Spontaneity Theatre* to the development of psychodrama. As the practice of group psychotherapy is spreading more rapidly than knowledge would permit, my original expositions⁷² of term and concept might be recalled here.

To the one-way relations between individuals correspond *one-way therapies*, to the two-way relations between individuals, correspond *two-way therapies*. To the one-way role relations between individuals correspond one-way role therapies, to the two-way role relations correspond two-way role therapies. Individuals in group situations can be "active therapeutic agents"⁷³ for one another. This can be observed in the simplest group discussion as well as in the most complex psychodramatic meeting. "The groups function for themselves, and the therapeutic process streams through their mutual inter-relations."⁷³ The therapeutic agents function within the group and not from without. "Treatment is projected away from the clinic into real life situations and techniques for a proper procedure to be used *on the spot* developed. The leader is *within* the group, not a person outside."⁷⁴ The therapeutic agent must not be a psychiatrist or an educator, it can be *any* participating individual. "The therapeutic agent for the unmanageable child . . . not a psychiatrist or educator outside the group, but another

⁷¹J. L. Moreno, *Application of the Group Method to Classification*, Beacon House Inc., 1931.

⁷²There are many types of group treatment possible and the problem was to define their common features and the principle difference between all forms of group psychotherapy and all forms of individual psychotherapy (in psychodramatic procedure group psychotherapy forms an essential part but it operates within a *special* setting). Looking backward—the conference on the "Application of the Group Method to Classification" during the meeting of the American Psychiatric Association in Philadelphia, May 1932, assumes historical significance for the development of group psychotherapy. The late Dr. William A. White was moderator of the discussion which was based on my book on the subject. (See Report of the Conference published by the National Committee on Prisons and Prison Labor, New York, 1932). It is significant that the rapid development of both group psychotherapy and sociometry dates from that conference on. Trigant Burrow's approach to group analysis remained unproductive—at least for what has become to be known in the last twelve years as group psychotherapy and sociometry. His analysis was falsely called group analysis. Because what Burrow meant to cure was not the *group* but the *kind* (phyloanalysis).

⁷³Op. cit. pp. 60-61, section on "Group Therapy"; see also Floyd H. Allport, *Social Psychology*, 1924, pp. 9-10 (Biological Forms of the Group Fallacy).

⁷⁴Op. cit., p. 94.

child within the group."⁷⁵ Group therapies have been applied in the open community to various social situations, home situations, school situations, as well as to closed communities as prisons and reformatories. They can be applied to mental hospital situations in such a manner that "through the inter-action of one or more persons (other patients) who are so coordinated to the patient that the curative tendencies within him are strengthened and the disparaging tendencies within him checked . . . so that he may influence the members of his group in a similar manner."⁷⁶

The sharp distinction between one-way and two-way therapies is important from the point of view of a system of social pathology. But even the therapist using the one-way approach must break with the rigid rule of doing all the treatment himself—as a one-man institution—which is, for instance, characteristic for the classic form of psychoanalysis. He, the directing agent, has often to engage helpers, auxiliary egos, who step in, substitute or replace him whenever it is required. The auxiliary ego technique has shown its usefulness in the treatment of many forms of social maladjustments and mental disorders, particularly in the treatment of children and psychotics. It is significant for the trends of our time that psychoanalysis begins to recognize the value of the auxiliary ego concept.⁷⁷

⁷⁵The greatest practical contribution to sociometry and group therapy has been made by educational sociometrists. The first report on sociometry in the classroom illustrated by sociograms was the "Analysis of Spontaneous Groupings within School Classes" by J. L. Moreno in collaboration with Helen H. Jennings and Richard Stockton; see *Application of the Group Method to Classification*, pp. 98-103, 1931. The researches carried out by Merl E. Bonney, Rose Cologne, Joan H. Criswell, Helen H. Jennings, Leona M. Kerstetter, N. Loeb, Florence B. Moreno, Mary L. Northway, Leslie D. Zeleny independently in Canada and the United States, give material confirmation of a sociogenetic law, in its broadest outlines. It suggests that the first stage of social isolation turns gradually into social differentiation of groupings of infants. The first traces of cooperative group behavior appears between two and four years, independent cooperative activities between six and seven at the end of the pre-socialized period. See *Who Shall Survive?*, pp. 33, 34, 38, also p. 303 in this issue. Chronological age is an inexact frame of reference. Social age and social quotient could replace it.

⁷⁶Op. cit., p. 97.

⁷⁷See Paul Federn, "Psychoanalysis of Psychoses", *Psychiatry Quarterly*, Volume 17, 1943, and Bulletin for Psychodrama and Group Psychotherapy in this issue, p. 344. See also, for the analysis of the auxiliary ego, J. L. Moreno, "Inter-personal Therapy and the Psychopathology of Inter-personal Relations", *Sociometry*, Volume 1, part 1, 1937. The same is true about the growing recognition of deep action methods. It should be of interest to future historians of psychotherapy to compare the development of psychodrama with psychoanalysis between 1920 and 1943. At a time when deep action methods were in full swing in my Stegreiftheater in Vienna (1921-1924), and my book on the subject appeared, the passive couch method was the rigorous

DIAGRAM OF THE THERAPIST

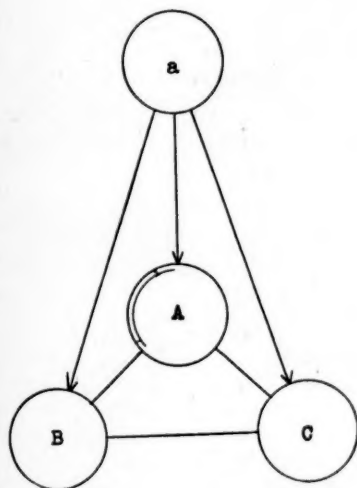
In Treatment Situations



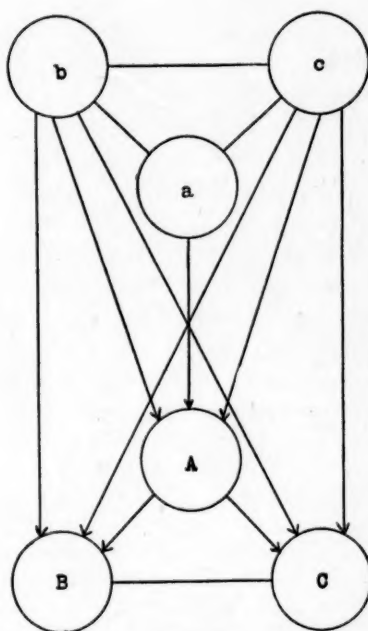
1) SELF-THERAPY
Therapist and patient
are the same person
a-A



2) ONE-WAY THERAPY
a—Therapist
A—Patient



3) INTER-PERSONAL THERAPY
a—Central or Chief Therapist.
A, B and C—Three persons contrib-
uting to an inter-personal neurosis.



4) INTER-PERSONAL THERAPY
a—Central or Chief Therapist.
b and c—Auxiliary therapists (egos).
A, B and C—Three persons contrib-
uting to an inter-personal neurosis.



Just as the therapist may consist of more than one person who administers treatment, also the patient may consist of more than one person on the receiving end, if the ailment involves two or more persons (see diagram of the Therapist). The therapist may be one person confronting in the treatment situation several individuals interlocked. He can treat them either independently in alternating sessions, in joint meetings, or in two phases, a phase of alternating sessions followed up later by a phase of joint meetings.⁷⁸ If the therapist is himself not one person but a director with a number of assistants confronting a number of individuals involved in the same conflict, the treatment situation begins to resemble more and more a psychodramatic situation out of which the deep action aspect is removed. There are treatment situations in use which are more complex but of the greatest usefulness when the number of participants is unlimited as in the group psychodrama,⁷⁹ and the audience so organized that its individual components are bound together by a common mental syndrome—although they may be socially total strangers to one another. Televised and filmed psychodrama promise a new form of group psychotherapy with nation-wide effect. Millions of individuals involved in the same problem can be treated at a distance by a sociodrama developed in a psychodramatic laboratory equipped for television broadcasting.⁸⁰ The urgent need for a therapy which can secure world-wide effects has been emphasized by me repeatedly and it is high time that the need is recognized by governmental agencies. The use of moving pictures, radio (and soon of television), by political organizations has produced world-wide emotional imbalances which must be counteracted by curative efforts of similarly huge proportions based upon unbiased, sociometric principles. But the therapeutic influence projected into distance must be combined with a sociometric approach to the groups in *situ*.⁸¹

rule among psychoanalysts. When Ferenczi permitted some of his patients to get up from the couch occasionally, and give expression to anxiety, he had to apologize for this transgression from the orthodox technique *soon after*. See Sandor Ferenczi, *Further Contributions to the Theory and Technique of Psychoanalysis*, Boni and Liveright, 1927. Deep action methods should not be confused with active analysis or a regression to pre-analytic educational and suggestion therapy.

⁷⁸See "Application of the Group Method to Classification", *Who Shall Survive?*, and "Inter-personal Therapy and the Psychopathology of Inter-personal Relations", *Sociometry*, Volume 1, part 1, 1937.

⁷⁹J. L. Moreno and Zerka Toeman, "The Group Approach in Psychodrama", *Sociometry*, Volume 5, Number 2, 1942.

⁸⁰See J. L. Moreno and John K. Fischel, "Spontaneity Procedures in Television Broadcasting with Special Emphasis on Inter-personal Relation Systems", *Sociometry*, Volume 5, Number 1, 1942.

⁸¹See "Comment by Read Bain", *Sociometry*, Volume 5, Number 2, 1942, p. xxxvii.

Political or other adverse influences in the local situation are able to *paralyze* and counteract any beneficial effect. The chief difficulty is, however, that the matrix of inter-individual relations does not produce automatically a smoothly functioning social surface. A simple illustration of this handicap is the placement of students in a dining room. "In a particular cottage of our training school live 28 girls. In their dining room are seven tables (each accommodates four people). The technique of placing them around these tables can take different forms. We may let them place themselves as they wish, and watch the result. A girl "A" seats herself at table 1; eight girls who are drawn to her try to place themselves at the same table. But table 1 can hold only three more. The result is a struggle and somebody has to interfere and arrange them in some arbitrary manner. A girl "B" runs to table 2, but nobody attempts to join her; thus three places at that table remain unused. The technique of letting the girls place themselves, we find, works out to be impracticable. It brings forth difficulties which enforce arbitrary, authoritative interference with their wishes, the opposite principle from the one which was intended, a free democratic individualistic process.

Another technique of placement is one applied strictly from the point of view of the supervisor of the dining room. She places them in such a fashion that they produce the least trouble to her without regard to the way in which the girls themselves feel about the placements. Or she picks for each of the seven tables a leader around whom she groups the rest without regard to the leader's feeling about them and without consideration of whether the "leader" is regarded by the girls as a "leader."⁸² This illustration shows plainly the contradictory and confusing character of the inter-personal matrix. It is not self-regulating adequately. It can be managed and mismanaged. It is, taken by itself, neither in favor of a democratic, autocratic, communistic or any other political process.⁸³ But any social order, if it wants to endure, has to take the deeper requirements of the group into account. "We have differentiated between the spontaneous, organic determinants of a psychological current, such as the feelings which arise from the individuals themselves, and the artificial or mechanical determinants, such as means which succeed to initiate or influence such

⁸²J. L. Moreno and Helen H. Jennings, "Advances in Sociometric Technique", *Sociometric Review*, 1936, p. 26.

⁸³J. L. Moreno, "Sociometry in Relation to Other Social Sciences", *Sociometry*, Volume 1, part 1, 1937, and Kurt Lewin and Ronald Lippitt, "An Experimental Approach to the Study of Autocracy and Democracy: A Preliminary Note", *Sociometry*, Volume 1, part 2, 1938.

feelings from without. The spontaneous determinants may produce a movement of a certain intensity, duration, and direction. The artificial or mechanical determinants may either accelerate or retard the intensity, duration, and direction, that is, accelerate or retard the development of a current. They may also excite a current to rise beyond its natural level to an unnatural intensity and prolong it beyond its natural duration. The groups in power in a community may be interested to, and often do, exert such influence. The tendency to interfere with the self-regulating mechanism of a current is a phenomenon which may be daily observed in a community. After a conflict between two gangs in a neighborhood has subsided, another group may be interested that this warfare continue and may devise methods to spread stories which materially contribute to extend it beyond its natural limit. Our knowledge of the networks by which a large population in a given geographical area is inter-connected suggests to how far an extent a group in power may be able to *degenerate* the development of psychological currents through the use of the modern technological methods for the dissemination of propaganda. We may not be able to command psychological currents but we may be able to extend, to accelerate, or to retard them,—in other words, to *denaturalize* their spontaneous unfoldment. A group in power may even attempt to produce psychological currents at *will*, synthetically. Such management of the networks and currents in a population is a most dangerous play and may produce greater disturbances in the depths than the momentary effects upon the surface at first may indicate.”⁸⁴ Since this has been written the nazi system of power has tried to produce in Germany a synthetic society and denaturalize spontaneous unfoldment. But according to sociometric evidence, a power system must decay from within sooner or later. It is not able to resist forever the upsurge of the spontaneous social psychological currents seething underneath the power system. The threat of a collapse of the power system is the greater, the larger the number of neighboring groups are which enjoy a higher degree of spontaneous unfoldment. The nazis were logical in their conclusions that they must spread their power over the entire globe in order that they save themselves from an early breakdown. As an isolated power system they could not exist for long. They could not create an independent Germanic culture if surrounded by cultures of a different and opposite order. The nazi system would be thrown from power by a revolution coming from within Germany itself, even if the allies should not succeed in winning the war. But even if a system like nazism could win a total victory and rule

⁸⁴*Who Shall Survive?*, pp. 349-350.

the globe, its existence in power would be under constant menace. It would have to make inner adjustments continuously to compensate the demands of the spontaneous social matrix and it would gradually lose its original character. In the course of time it would be a power system in name only, or be replaced by a regime which represents the actual social structure more adequately.

SOCIOMETRY AND THE CULTURAL ORDER

The sum total of all methods, procedures and tests of sociometry has a supreme aim, to explore, test and measure the present cultural order. Let us examine its structure first in the light of our twin concept spontaneity-conserve. I summarized the situation in *Who Shall Survive?* "At the beginning⁸⁵ of national cultures, the cultural forms, dance, music, drama, religion, custom, are improvised, created in the moment, but as the moments of inspiration pass man becomes more fascinated by the contents which have remained from the by-gone created acts, by their careful conservation and estimation of their value, than to keep on and to continue creating. It seemed to man a higher stage of culture to forsake the moment, its uncertainty and helplessness, and to struggle for contents, to select and idolize them, thus laying ground for our type of civilization, the civilization of the *conserve*. . . . The process beginning with inspired Dionysian acts, ended in a sacred content. This was not accidental. It was an intentional evolution. . . . It seems we experience today a similar case in Russia. . . . Their goal, however, is not the moment and with it in consequence the flexible spontaneous personality, but the mass man, the functional man, the man who can be *exchanged* and with it the repetition of a sacred political rite, a conserve, the revolution." The degree of spontaneous mobility, however, differs markedly between, let us say, the traditional life of a Hindu community, a farm community in Oklahoma, and New York Manhattan. The sacred tradition has become in communist Russia the works of Marx and Lenin, in nazi Germany a nordic bible, in India the life of Buddha, a democratic people revere the declaration of independence and the sermon on the mount. Only the contents change, the principle is in every case the same. The cultural behavior is unaltered. It is characterized by the sacrifice of the moment upon the altar of conserves. We could visualize a full reversal of this picture, although there is no historical precedent for it, a culture in which

⁸⁵There is no true "beginning," there is always a hangover from previous traditions, but there are flashes of novelty which give every revolutionary period an increased spontaneous mobility, and a changing pattern of role relations. See, *Who Shall Survive?*, chapter XIII. Spontaneous Evolution of Society, pp. 337-339.

the conserves are sacrificed before the altar of the moment. It would be the moment then, which becomes sacred.⁸⁶

Like the human societies which our cultural order brings forth, also its social revolutions follow a traditional pattern. At the start they contemplate a new *social moment*. They start with an increased spontaneous mobility of the participating individuals, and with dynamic changes in the psycho-social structures of the groups involved. But after a certain period of time the revolution resolves itself like a sky-rocket which consummates its speed, a decrease of its spontaneous mobility sets in, and a freezing up of the contents of the psycho-social structure with or without modifications.

The gain of revolutions is minimal compared to the effort expended, moreover the ends for which they are fought are rarely attained. Let us examine therefore, how their blueprints compare to the sociometric principles which are found to operate within psycho-social structures. Among the major revolutions which took place within the last century and a half, the American-French revolution produced a blueprint which was founded on a universal idealism, but it was made without knowledge of the factors operating in human inter-action. Mankind was a sum of individuals. The guarantee of freedom, equality and fraternity was believed capable of adjusting all social problems. The dynamics caused by inter-personal and inter-group relations did not play a part in their masterplan. The communist revolution led by Marx and later by Lenin made some changes in the blueprint. It narrowed the field of analysis to the economic question. Mankind was no longer considered a sum of individuals with equal rights and equal opportunities, as the American and French revolutions had declared. It was divided into two classes, the class of producers and the class of capitalistic owners. In establishing a single focus Marx was able to develop methodically a dialectic of action. He made two alterations in the blueprint. On one hand he divided society into the two social classes, on the other hand he reduced the importance of the single individual breaking up the revolution into two phases, the working class revolution and the individual psychological revolution, the latter to follow after the working class

⁸⁶Becker and Myers suggest the term sacred and secular, sacred to express societal inertia, secular, craving for the new. See Howard Becker and Robert C. Myers, "Sacred and Secular Aspects of Human Society," *Sociometry*, Volume 5, Number 3, p. 207. But the craving of the eternally new can become to its bearers just as sacred as the craving for the eternally recurrent. Phrasings which I am using, as spontaneous or emerging societies on one hand and conserved or stereotyped societies on the other hand, seem to me more appropriate than secular and sacred.

had been placed in power. Marx, spurred by his faith in historical determinism and unaware of the cumulative effect of inter-personal and inter-group processes, thought that they could wait a few centuries patiently, until the economic victory was won. In his concept of social classes Marx showed, however, a nearness to sociometric findings. He placed all individuals who work for wages without getting the full value of their labor, into one group. The fact of exploitation, he thought, must produce between them emotional ties. The "criterion" of economic slavery should weld them into one dynamic social force. He placed all individuals who used up the unearned surplus value into a second group, the capitalistic owners. However, the denotations of the class concept have been numerous and vague, as a half truth they produced confusion. The nazi revolution followed the communist example in further reducing the importance of the single individual and in dividing mankind into two racial classes. The division is in reality still more difficult to establish.

It is obvious that just as revolutions and wars, also their eternal counterparts, the post-revolutionary, post-war and peace-planning must be constructed in accord with the reality of human social structures. Sociometry has taught us to be pessimistic, critical of all enterprises which try to solve problems of human relations without the most intensive participation of the people involved, and the most intensive knowledge of their psycho-social living conditions. We have good reasons to fear that, like the revolutions and wars which produced them, the peace conferences and leagues of nations will result in skyrocketing and end in failure.

IN MEMORIAM

BARBARA S. BURKS

1902-1943

With the death of Barbara Stoddard Burks, psychology and sociometry have lost a most brilliant and creative worker.

She was born in 1902. Her training was received at Leland Stanford Jr. University, where her first great inspiration lay in the studies of genius inaugurated by L. M. Terman. She was one of the collaborators in his studies of gifted children, and contributed heavily to *Genetic Studies of Genius*. In Terman's seminar and in statistical studies with Kelley she learned to use the newer applied mathematics in problems of nature and nurture. One result of her enthusiasm for exact biological approaches to the problem of heredity was a large-scale study of the resemblance of parents to foster children on the one hand, and to their own children on the other, based upon large California samples, and published in the Yearbook of the National Society for the Study of Education, 1928. This led quickly to a very well deserved reputation as a psychologist.

At the Institute of Child Welfare at the University of California she was drawn more and more into personality studies, making original use of some of the Hartshorne-May techniques, and becoming so deeply identified with personality studies that she collaborated with Mary Cover Jones in a systematic study of "Personality Development in Childhood" appearing in 1936.

When the Social Science Research Council appointed a committee in 1935 to make a systematic study of "competitive and cooperative habits," the committee designated Burks a collaborator whose special duty was to draw together all the research bearing on the personality factors which enter into competition and cooperation. The result was an exhaustive study of nature-nurture factors in these broad human dispositions. She was in the same year awarded a fellowship of the General Education Board for a study of child development and education in Europe, which led to several months' residence in Geneva, intimate contact with the Piaget group, research studies of egocentrism in childhood, and a broadening in social-science perspective which became conspicuous in subsequent work.

It was in this period of broadening interest in the social sciences that she became familiar with Dr. Moreno's *Who Shall Survive?* and with the sociometric method in its broadest sense. Her imagination was captivated by the whole approach. Despite a creative life with an abundance of interests, she found time for visits to see the Moreno methods in use and to find out

at first hand what Hudson and Beacon stood for. She never ceased thereafter to follow sociometric techniques and ways of thinking, quoting Moreno's work in many contexts, and always ready to see human problems in terms of spontaneity and its cultivation.

In this period also she took the lead in organizing a committee of the American Psychological Association on Displaced European Psychologists, and gave unstintingly of her time and heart to the vast task of finding refuge for them in the American scholarly world, a task fulfilled so well and with such humanity that not only many individual scholars, but American psychology at large, remain deeply her debtor.

Becoming an Associate of the Department of Psychology at Columbia, she gave much of her time to the study of parent-child and parent-foster-child resemblances. Her greatest interest in these years, however, lay in the study of identical twins reared apart. She followed up clues as to the existence and whereabouts of such twin pairs, approached the families with the systematic methods of the case worker, and followed with the arduous techniques of the biometrist and psychometrician. This work constituted an important extension of the studies of Newman on identical twins reared apart. A book on the whole problem was in the process of planning and a Guggenheim Fellowship had been awarded her in the spring of 1943 for the prosecution of such studies. Some of the obtained material has already seen the light in the form of journal contributions.

She died on May 25, 1943. The period of her research contribution to psychology can properly be divided into three divisions: a period of intensive statistical studies of heredity, a period of broadening contact with personality study, and a period which, though carrying forward the earlier studies, was given largely to work in the area where the social sciences overlap the biological.

The qualities which her friends and comrades in research will forever remember were her burning eagerness, her profound generosity, her militant intellectual honesty, her freshness and enthusiasm; above all, the sense that every new discovery about man is overwhelmingly vital and important.

GARDNER MURPHY

The College of the City of New York
July 1943

ANNOUNCEMENTS

American Sociological Society, Annual Meeting, 1943

The annual meeting takes place at the Hotel McAlpin, on December 4th and 5th. Dr. George A. Lundberg, President of the Society, will deliver the presidential address on December 5th.

American Sociological Society, Section on Sociometry, 1943

Chairman of the section on Sociometry for the annual meeting is Dr. Charles P. Loomis, U. S. Department of Agriculture, Bureau of Agricultural Economics, Washington, D. C.

Sociometric Study of Groups of Primates

Dr. C. R. Carpenter, Associate Professor of Psychology, at the Pennsylvania State College, announces the following study to be in progress: "Sociometric analysis of free-ranging groups of primates . . . judging the strength of social attachments between two or among several individuals on the basis of the average distance separating these animals for an adequate length of time . . . attempt to plot special distribution of animals in order to analyze or deduce the structure of groups."

Rural Settlement Institute

Dr. Heinrich F. Infeld, Executive Director, informs us of a change of spelling of his name to Henrik F. Infield.

Forthcoming Book Reviews

The November issue of *SOCIOMETRY* will contain the following reviews: Theodore M. Newcomb, "Personality and Social Change," by Helen H. Jennings.

Maurice H. Krout, "Introduction to Social Psychology."

Helen H. Jennings, "Leadership and Isolation," by Ronald Lippitt.

New Contributing Editors of Sociometry

We are glad to announce that the following have been added to the board of contributing editors to *SOCIOMETRY*: Merl E. Bonney, North Texas State Teachers College, Denton, Texas; Joan H. Criswell, Austin, Texas; Stuart C. Dodd, American University of Beirut, Beirut, Syria; Mary L. Northway, University of Toronto, Toronto, Canada; Irwing T. Sanders, United States Department of Agriculture, Washington, D. C.; Theodore R. Sarbin, Northwestern University, Evanston, Illinois.

Sociometric Plan in Organizing Committees

A sociometric plan was used to organize committees in the Pennsylvania State College, School of Education, Home Economics Department, Dr. Laura W. Drummond, Director. "We proceeded as follows: a sheet was first developed naming the committees which have seemed essential in the operation of the department and defining the duties of each. Each member of the staff was given this sheet, a list of staff members, and a third sheet upon which to express her first three preferences as to committees upon which she might like to serve. She was asked also to choose four persons from the staff with whom she might like to work in the case of each committee choice. These sheets indicating the choices of faculty members were then analyzed by Miss Rose Cologne, a former member of the staff and a person well-informed in the use of the sociometric technique. On the basis of her analysis committees were organized for the year 1943."

SOCIOMETRIC STUDIES RECENTLY COMPLETED

- Urie Bronfenbrenner. "Structure and Status of Social Groups." Unpublished doctoral dissertation, University of Michigan.
- Mary Martha Gordon (Thompson). "Discriminatory Leadership and Its Effect on the Relations Between the More and the Less Privileged Subgroups." Unpublished doctoral dissertation, State University of Iowa.
- N. Loeb. "The Educational and Psychological Significance of Social Acceptability and Its Appraisal in an Elementary School Setting." Unpublished doctoral dissertation, University of Toronto.
- Mary L. Northway. "Outsiders." A study of the personality patterns of children least acceptable to their age mates, University of Toronto.
- Alexander Kirwin MacDonald. "A Study of the Use of Natural Groups in the Formation of Scout Patrols." Unpublished master's thesis, Springfield College.
- Adolph Sandin. "Social Adjustments of Regularly Promoted and Non-Promoted Pupils." In press, New York: Bureau of Publications, Teachers College, Columbia.
- Frank Loel Sweetser. "Neighborhood Acquaintance and Association, A Study of Personal Neighborhoods." Privately published.
- (In process) Summary of Development and Methods of Scoutmaster Training Experimental Project. Research and Statistical Service, Boy Scouts of America, New York, N. Y.

BULLETIN OF THE SOCIETY FOR PSYCHODRAMA AND GROUP PSYCHOTHERAPY

Function of the Bulletin

The Bulletin is to be a means of communication between workers in the field of psychodrama and group psychotherapy. These two terms are labels for certain operations and procedures. If the same operations are used under different labels, it is the aim of the Bulletin to arrive at a common terminology.

Officers of the Society

At a meeting of its Executive Committee, J. L. Moreno, M.D., Psychodramatic Institute, Beacon, N. Y., was elected President; Theodore R. Sarbin, Ph.D., Northwestern University, Evanston, Ill., was elected Vice-President; Zerka Toeman, Psychodramatic Institute, New York, N. Y., was elected Secretary. Correspondence regarding membership, dues, and activities should be sent to the Office of the Society, Psychodramatic Institute, 101 Park Avenue, New York, N. Y.

Psychodramatic Institute, Beacon, N. Y.

A Psychodramatic session on June 12, 1943, was given to a group of students from the following colleges: College of the City of New York, Hunter College, Brooklyn College, Queens College, New York Medical College, Sarah Lawrence College. Among the guests were Professor Mary V. Heinlein, Head of the Drama Department at Vassar College, Poughkeepsie, N. Y., and Dr. Frederic Feichtinger, New York Medical College. The demonstration consisted of: Testing of normal subjects in standard life situations, treatment of psychotic problems and improvisations of fantasies. The session was conducted by J. L. Moreno with Sara Chase as the chief auxiliary ego.

Psychodramatic Institute, New York, N. Y.

The following sessions aroused particular interest because of the methods used: Session on April 2, 1943. Presentation: "Training and Retraining of Delinquent Boys." Session on April 23, 1943. Presentation: "Autobiography of a Person," in a series of psychodramatic situations. Guests were nurses and social workers from the Henry Street Settlement House. Session on July 30, 1943. Presentation: "A Cultural Conflict" portrayed on the stage by two carriers of opposite views, the role of the traditional religionist versus the role of the rebel against the social order. Guests: students enrolled in the leadership training workshop at the New School of Social Research.

The Theatre for the Psychodrama at St. Elizabeths Hospital, Washington, D. C.

The report by Frances Herriott and Margaret Hagan on their psychodramatic work at this hospital is available at Beacon House Inc., 101 Park Avenue, New York, N. Y.

Psychodramatic Clinic at Elgin State Hospital, Elgin, Illinois

The Psychodramatic clinic at this hospital is under the direction of Dr. Theodore R. Sarbin. Dr. Sarbin is engaged in the treatment of mental patients, using psychodramatic methods. In collaboration with Ann Sarbin he has developed psychodramatic techniques in aptitude test situations for prospective social workers.

Psychodramatic Clinic at the Neuropsychiatric Institute, University of Illinois, Chicago, Illinois

The psychodramatic clinic is under the direction of Dr. Alfred P. Solomon; the Director of the Neuropsychiatric Institute is Dr. Francis T. Gerty. A staff of auxiliary egos is trained and mental patients are treated as a group by use of psychodramatic techniques.

Howard State Hospital, Howard, Rhode Island

Dr. Gerhard Schauer is conducting sessions on group psychotherapy for mental patients. Psychodramatic procedures are coördinated with the group method. Psychodramatic treatment for a group of alcoholic patients is now being planned.

Dr. Gerhard Schauer is preparing a paper on the value of psychodramatic and group psychotherapy for mental hospitals. He studied at the Psychodramatic Institute, Beacon, N. Y., in the summer of 1943.

New School of Social Research: Leadership Training Workshop

Dr. Ronald Lippitt is conducting a "leadership-role-laying-laboratory" as one of the techniques of preparing course members to do a more effective job of democratic group leadership.

Psychodrama in the Classroom, P.S. 157, Brooklyn, N. Y.

Mr. Nathan Shoobs, Assistant Principal, has initiated a course of psychodramatic lessons for the treatment of delinquency problems. He has begun the work with a class of boys during the schoolyear 1942-1943 and will apply the psychodramatic system of training to other classes during the coming school year.

Boy Scouts of America

Dr. Ronald Lippitt and Dr. Alvin Zander are experimenting with psychodramatic techniques in the training of leaders for Boy Scout units.

Institute for Psychoanalysis, Chicago, Illinois

Second meeting of the Brief Psychotherapy Council will be held in Chicago on January 14, 15, and 16, 1944. J. L. Moreno will read a paper on "Group Psychotherapy and Psychodrama," during the afternoon session on January 16, which will be devoted to group psychotherapy. Discussant, Dr. Alfred P. Solomon, College of Medicine, University of Illinois, Chicago, Illinois.

Institute on Personality Development, New York, N. Y.

Dr. J. L. Moreno, Psychodramatic Institute, New York, N. Y., will read a paper on "Psychodrama, Its Theory and Practice," on November 12, 1943.

Psychodramatic Institute, New York, N. Y.

Dr. J. L. Moreno, Director, will introduce the concept of sociodrama in its application to anthropological problems on Friday, December 3, at 8:00 p.m. The lecture will be accompanied by demonstrations in the theatre for psychodrama in collaboration with a staff of auxiliary egos.

NOTES AND COMMENTS

The American Journal of Psychiatry, Symposium on Military Psychiatry, Volume 100, Number 1, July 1943, contains a number of valuable references to group psychotherapy and psychodrama.

A Practical Red Cross Program for the Social Rehabilitation of Psychiatric Casualties in the United States Navy, by Margaret Hagan and Addison M. Duval, M.D.

"The audience in the psychodramatic theatre is composed of patients, workers and occasionally physicians. Spontaneous group discussion is the rule and is at all times free and unhampered. One result of such treatment which cannot be minimized is that the patient bringing his problem finds that his trouble after all is not so unique as he had supposed, that other, in fact most human beings, are confronted with similar difficulties. This realization tends in our experience, to lessen tension and to socialize the patient. . . . Our conclusions are that: (1) Short of analysis, or long time distributive therapy for each patient, a goal which is impossible even in peacetime, a team approach has definite usefulness and some advantages. (2) It gives the patient expert psychiatric and psychological services, as well as an opportunity to externalize and share his troubles; an affectional relationship with secure personalities, and an opportunity to try himself

out in work and social relationships in a controlled environment. We regret that we have no statistical evidence to offer of the results of this treatment. When the tumult dies and the lights come on again we hope to be able to furnish these. We know our patients are getting jobs and that many of them are staying well so far, and we don't even have our fingers crossed about some. It is our considered opinion from our experience at St. Elizabeth's that such work as we have described should be and is within the scope and management of psychiatric social workers of the Red Cross working with the psychiatrists in any naval hospital; and that such a program of socialization should begin with the admission of the patient and be continuous and should provide him with a chance to discover that psychiatric social workers are truly social workers within the real meaning of the word."

Psychiatry As Seen in the Advanced Mobile Base Hospitals, Lieutenant Howard P. Rome, MC-V (S), U.S.N.R.

"... any therapeutic attempt based on these individual points is an endless procedure. There is a need for a more comprehensive procedure. This is found in group psychotherapy which is equally applicable to all the neuroses. Group psychotherapy has the advantage of combining expediency with the best possible rehabilitation therapy. In small groups of from 5 to 10 participants, all presenting the same symptom picture, the approach can be specific, i.e., through those symptoms enabling them to gain personal relief from incapacitating complaints. The rationale is based on the fact that in all military organizations security rests on collective action. "In union there is strength" is a maxim, not a cliché. The more an individual feels allied to his squad, platoon, company or crew, the less is he vulnerable to a war neurosis. In a group security is gained by a mutual pooling of insecurity. The group itself is the emotional equivalent of a "kitty" from which all participating are eligible to draw the additional security necessary to fulfill their personal demands."

A System of Combined Individual and Group Therapy As Used in the Medical Program for Merchant Seamen, by Stephen Sherman, M.D., U. S. Public Health Service.

"There seems to be general agreement that individual psychoanalytic procedures do not fulfill all the therapeutic needs of the patient. All those problems and conflicts which came roughly within the domain of the social superego do not seem to get properly worked out. The patient, returned to society, may find that his relationship with people at large is still grossly distorted. Most of the group therapies seem to have aimed at correcting this deficiency in the individual analytic procedure."

Discussion, Dr. E. A. Strecker, Philadelphia.

"A good deal will depend upon the multiplication of the work being done at St. Elizabeth's by Dr. Duval and Miss Hagan and at other centers. As Miss Hagan emphasized, group therapy constitutes an important treatment approach, effective and importantly utilitarian, since obviously lack of time and many patients prohibit individual therapy for everyone."

Discussion, G. N. Raines, Lt. Comdr., U.S.N.

"Group therapy not only is effective, but must be used in some degree, regardless of the individual therapy given and regardless of the therapist's wishes, for the men live as a group and 'treat' each other without consulting the psychiatrist.

Psychiatric Quarterly, Volume 17, 1943, Psychoanalysis of Psychoses, Paul Federn, M.D.

This excellent article deals with trends of thought familiar to psychodramatic and sociometric field workers, especially the function of the auxiliary ego ("helper") in the treatment of Psychoses.

"The patient should be assisted and protected, he should not be left to himself and his tribulations outside the analytical hours. The helper must have won the patient's positive transference—and the helper may possibly be the mother, sister or brother. . . . When no close relatives are sufficiently loving to devote themselves for some time to the task, a friend is necessary. Without such a harbor for libidinous relief, psychoses are not cured or an accomplished cure does not persist, either when attained by pharmacologic shock, by psychoanalytical treatment, or by a combination of both. . . . Neither the true Freudian technique which Freud developed for neurotic diseases, nor the pseudo-analytical measures . . . are adapted to severe cases. . . . Analysts, however, were wrong in concluding that the psychotic forms no transference. He is eager to make transferences with the healthy and the disordered parts of the ego; these parts can either have the same object or different ones. . . . The time is near when no gap will exist between psychoanalyst and psychiatrist. Many psychiatrists already apply their knowledge of psychoanalysis to psychotic patients; the writer does not object to methods like the group analysis of Trigant Burrow and of Schilder, or to Moreno's stage method; all these methods can be very helpful."

PSYCHODRAMATIC RESEARCH PROJECTS

The Psychodramatic method is a versatile instrument for the intensive study of inter-personal relations. It is easily adapted to many varying problems of behavior. Interested in the uses of this technique, a number of young men and women psychology students from the City Colleges and elsewhere recently formed a Committee for Research. At this date, several experiments are under consideration for research and many others are being projected for future investigation. These research studies are being conducted under the supervision of J. L. Moreno at the Psychodramatic Institute in New York.

It would be interesting and valuable if other research workers with the facilities provided by the psychodramatic method would go into various of the problems being considered by this Committee. A few of them are presented in the following paragraphs.

1. What are the problems confronting those who are injured in warfare (or in industry) during the period of re-adjustment; and, in what specific ways can the psychodrama method be used to aid and direct re-adjustment?

It is important to determine the manner in which the individual's attitudes towards himself have been changed, how seriously, and in what direction. With such knowledge established, the psychodrama director can then proceed to the study of what training in attitude and spontaneity will be required. Also necessary as background material is the attitude this patient expects society to demonstrate toward him, and his reactions to this expected attitude.

Those situations of life which involve changes in habit patterns and general behavior as direct consequence of the injury must be spontaneously created by the patient and auxiliary egos in the attempt to assist the patient in rehabilitation.

2. Research into the correlation between behavioral situations (as reproduced on the psychodramatic stage) and various projective methods. At present, attention is being confined to the study of aggression.

Wittingness on the part of subjects is the obvious drawback of standard methods for studying personality. This is especially true of pencil and paper test. However, a psychodramatic technique has the advantage of so obscuring the aim of the investigator that the subject unwittingly reveals unconscious trends. This research aims to study the relationship between actual behavior (as seen on the stage) and results obtained from a projective technique for studying aggression.

3. It would be interesting to know in what ways two individuals who show strong similarities (deduced from psychological tests) differ in behavior

under stresses induced by crucial psychodramatic situations and how these differences can be related to constant factors in environment.

The strength of the various cultural conserves would be considered in connection with such research.

This study, as the above one, has the advantage of divisibility into smaller problems.

4. What are the various factors making up the role of teacher; what is the range of roles common to "successful" teachers?

It would be very significant were it found that a common range of roles were shared by teachers and that certain other roles were commonly rejected. A priori knowledge gives valuable leads here, but these are vague and undefined, deserving psychodramatic investigation.

Training of teachers directly comes into consideration. Testing the spontaneity of prospective teachers in that range of roles discovered by the research sketched above would give information as to their probable outcome. Furthermore, psychodramatic training could develop the necessary spontaneity in the essential roles in prospective teachers.

These four problems and the questions which they instigate in the researcher's mind are fertile ground for psychodramatic study. They and others like them open up vast fields hitherto virtually untouched by the more usual or standard student of psychology.

Committee for Research

Paul Cornyetz, College of the City of New York

Edward Davis, College of the City of New York

Shirley Kosloff, Hunter College

Julia Abrams, Hunter College

William Lundin, Queens College

Zerka Toeman, Psychodramatic Institute

MAN IS THE MEASURE . . .

READ BAIN

Miami University, Oxford, Ohio

Rick, the Ridic. Nine-life Eddie is much in the news these days (March 10, 1943) condemning labor's desire for a fair slice of the war-profits melon. He implies that war workers should be paid the same amount as the boys in the armed forces. He opposes the \$25,000 net salary rule because it would limit initiative. He seems to believe that soldiers are motivated primarily by patriotism, that war workers should be, but that rich executives are motivated chiefly by the Almighty Dollar, especially in lumps of \$25,000 or more. He may be right about the latter, but rich men should be given the benefit of the doubt.

Would Rick support this "modest proposal"? Give all men who actually are risking their lives in the face of the enemy, \$25,000 a year; all productive war workers, \$10,000; all executives, school teachers, lawyers, doctors, elected and appointed officials, and white-collar workers, a decent living—from two to five thousand according to ability? This seems far more sensible than Ridiculous Rick's loose talk and looser thought—if he thinks.

A really sensible plan would be to give everyone a decent-standard-of-living wage, about \$2000 at present prices, with a chance to work up to \$10,000 a year. This should be enough for any sane man in a democracy like ours. Those who want more are obsessed and possessed by perverted pecuniary values. They are disciples of Greed and servants of Mammon.

Eddie is a man of mana and a good man in his place but he certainly has no special competence in labor relations, public policy, personnel management, or public finance. He should remember another great aviator who talked too much about what he knew too little. Rick and many other wealthy men protest that they "love labor" or at least are not "against it". They "protest too much" and their deeds belie their words, or rather, the words they speak out of the "loving labor" side of their mouths. Labor is "not amused" and will not forever swallow such double-talk and double-cross. Most soldiers are also workers. When they have cleaned up the Japs and the Germs, they will find another clean-up job to do at home. They must help make the kind of a country they think they are fighting for.

The Cockeyed Congress. This is not a captious caption. It is a figurative ophthalmic reference, not a foudroyant epithetic one, to the "vision" of our legislative experts (?). By a malodorous parliamentary trick, they

have just made the world safe for Big Business by repealing the President's \$25,000 net salary ruling instead of extending it to include "incomes from whatever source" and reducing the amount to \$10,000. They are proposing to give the Senate veto power on all appointees who receive \$4500 a year and up. This is statesmanship of the first water—swamp water. They are going to put the President in his place, by god, even if we lose the war, or win it with a runaway inflation, or a messed-up peace, either imperialistic or isolationist; they are going to tell the Army and Navy what to do; they are going to fix labor's clock and give the farmers plenty of hay, or kale; they are going to save or restore the "American Way of Life", by which, apparently, they mean "There is no God but Mammon and Politicians are his Prophets"—or is it "profits"?

Congress, like Rick the Ridic, is all het up over absenteeism. It is ready to crack down—without inquiring how much absenteeism there really is, what kinds there are, how much management may be at fault, and what possible remedies may exist. Congressmen, or the loudest mouthed ones, at least, seem to think all absenteeism is alike and is mostly due to moral obliquity, lack of patriotism on the part of labor, and general human cussedness. The shouting Solons do not seem to be fazed by the fact that Congress probably has a highest absentee rate in the United States; nor is it sensitive to the fact that it has many other more serious sins, both of omission and commission, to its discredit.

Congress should turn at least one of its cockeyes upon the mighty beam in both its eyes before it cracks down on women who may be ill, or may have sickness in the family, or a washing to do; or on men who can't get transportation, or who may be sick or injured, or who have some necessary business. Absenteeism may be caused by incompetent management or by governmental regulations which produce bottlenecks.

One of my cockeyes is cocked suspiciously at management and government. The other one is squinted balefully at what seems to be a growing tendency on the part of Congress, business, management, the press, and a misled public to "Discredit Labor"—and especially union labor. We seem to be swinging early into the usual postwar attempt to "Butcher Labor to make a Business Holiday". All the Tories in the world are not in France and England. In fact, it begins to look as if there are more Tories in the United States than in all the rest of the world put together.

Life in the Age of the Common Man. " . . . Joseph . . . said . . . there was no point in having (children) if they had to go on doing what their fathers had done."

"William . . . had walked the streets of Liverpool in 1927 for months looking for work, and . . . he didn't come home at night lest the Missus give him half her supper." (George Boas, "Three British Sailors", *Harpers Magazine*, March 1943).

It's a Tuff War—for Bitches. Many female caninophiliacs are unmarried and the married ones are often failures as wives and mothers. Some develop caninophilia after they have become maladjusted in marriage and/or motherhood. Some premarital dog-lovers disguise their dog-fixation by transfer of affect, i. e., they try to use husband and children to get the psychopathic satisfactions they formerly received from dogs.

The Old Lady is a case in point. She may not have been a premarital caninophiliac but she evidently has been a neurotic or psychotic for years. She has one mother-fixated and mother-smothered daughter who is now in her thirties and is staging a mild and much-belated postadolescent rebellion. She has even gone so far as to have a "date" now and then but nothing comes of her dates; the Old Lady sees to that. As the tension between them has increased, the O. L. has "gone to the dogs" in a big way to compensate for the imminent loss of her darling daughter. She figuratively ties the girl to the dogs, and thus to her. She also annoys the girl with the dogs and thus punishes her for trying to escape the mother-clutch. The girl hates both the mother and the dogs but so far she has not been able to do much about it except to get more and more neurotic herself.

The O. L. thinks the OPA is "just too unfair" because she cannot get the sirloin steaks to which the dogs are accustomed. She makes the girl drive her twice a week to a city near our village. This uses up about fifty miles of her four gallons which she also thinks is "just too unfair". She traipses from shop to shop hunting steaks for the curs. Recently, a butcher "had the nerve to scold her" for buying sirloin steaks for the dogs when hundreds of children cannot get enough meat but "I just told him these darlings are my babies".

Many male caninophiliacs are defective or defeated lovers of women. Some suffer from infantile arrest. Others have never gained status befitting their conception of their "just deserts" and so they turn to their dogs who "understand and appreciate them better than most humans do".

Of course, one may like dogs and still be a normal adult person. Most people do; more women than men seem to have sufficiently obsessive dog-fixations to warrant the term caninophilia. It is a much more common disease in urban than in rural areas, both for men and women. It seems to be an increasing form of urban sociopathy. It thus becomes a convenient and

therefore common mode of expressing individual neuroses and psychoses. Some of its common symptoms in its milder forms is excessive sentimentality about the curs, obsessive identification with dogs in general and the owners in particular, disregard for other people's property, persons, and feelings, and complete indifference to the ridiculous figure a human being makes when he is being led around by a dog that commits a nuisance on every post. Those who know more about the wickedness of great cities than I, tell me that overt sexual perversions with dogs are not uncommon, but I imagine most of them remain on an unconscious symbolical level.

Are Two Terms Enough? Most neurotic and psychotic behavior can be classified as *Punishing* (self, or others) and *Escaping* (self, or guilt-feelings; others (objects), or fears). It would be interesting to work this out fully with empirical data to see at what point it breaks down or requires "stretching" the data so much that it becomes useless. It seems too simple but there are many useful two-term classifications which are inclusive, exclusive, and approximately exhaustive of the universes they describe.

Work and Play. Many people define work as "what you have to do—but don't like" and play as "what you like—but shouldn't do"; play is thus slightly wicked (at least for adults) and work is worthy but something of a necessary evil. Such people are slightly neurotic about both work and play since they feel compelled to do both but worry and feel guilty about them. Many people have to rationalize their play by such excuses as "it improves my health", "tones me up for work", "gives me social status", "helps me in my business", etc. If they deceive themselves but not others by such statements, i. e., if they really enjoy the play for its own sake, they are mild psychotics; if they "say" these things but really do not believe them, i. e., if they feel guilty and apologetic for playing, they are neurotic.

Of course, both work and play may become severe and even dangerous neurotic or psychotic behavior, as may any other "normal" activity, though in most cases they would be what I have called "derived" psychopathologies. The *basic* neurosis or psychosis from which they are derived must be sought in other segments of the personality. A normal person will enjoy both work and play in proper amounts according to time and place. The sociopathic nature of our economic system and/or the psychopathic nature of our people are indicated by the fact that so many of us do not enjoy our work, feel guilty about our play, and choose recreations which are escapist, compensatory, or regressive. People who do not like to "talk shop" are slightly psychopathic about their work; people who apologize for their play, or show no

normal enthusiasm and zest for it, are likely to be neurotic. On the other hand, obsessive interest in either work or play is a psychopathic symptom.

Eat, Drink, and Be Buried. Probably more people die from psychopathic eating (bulimia) than from psychopathic drinking. "The American people dig their graves with their teeth". The alcoholic is usually a neurotic: he worries, feels guilty, swears he will never touch another drop—and then goes out and gets stinko. He may become psychotic, or at least develop marked derivative psychoses in advanced stages of his disease. He usually dies from starvation rather than from the direct effects of alcohol. Alcoholism is often a neurosis derived from some basic neurosis or psychosis. The same is true of bulimia except that it is usually a psychosis since the patient does not know that he eats compulsively and psychopathically. If the bulimia produces adiposity, the patient may become neurotic about his overweight or appearance. Thus, the bulimia is a psychosis derived from some basic psychosis or neurosis and the neurotic reaction to fatness is derived from the psychotic bulimia, which is itself usually derivative.

This sounds a little like the cycles and epicycles of Ptolemy. There is a great need for some simplifying Copernicus of psychiatry to arise in the land.

The Bore and the Bored. The bore is usually a mild psychotic since he does not know that he bores. He does three things unconsciously and compulsively: repeats himself, elaborates the obvious, exaggerates the trivial. One who *fears* he is boring others is mildly neurotic; the "fear-that-he-bores" is probably a derivative symptom of some basic psychosis or neurosis.

The bored person is neurotic because he is irrationally irritated by things most people enjoy or regard as important and necessary. He usually lacks imagination, information, humor, ability to observe, and capacity to take the role of others (understanding). Since he is sure he lacks none of these traits, he is psychotic in this sense. The chronic bore and the chronically bored usually have some marked basic neurosis or psychosis of which boring and boredom are derivative symptoms.

Echolalia in Excelsis. Man is the Great Renamer. Often he thinks he has changed his mind when he merely has changed his verbal shirt. Great Pan is dead: but he is succeeded in turn by Christ, the Virgin (almost), the Deity, the First Cause, Natural Law, Nature (often "Mother Nature"), Science, and even by God the Mathematician. Instinct is dead: but prepotent reflexes, drives, native dispositions, genes, appetites, and innate tendencies still survive. Divine Right of Kings is dead: but Geniuses, Leaders, Führers, Élite, Indispensable Men, and Uppuh Clawsses are with us still. Mana is

defunct: but Personality, Luck, Prestige, "Something about him", "It", and Smartness still rule the roost. For Genesis, write Evolution; for "queer", mental defective; for crazy, psychosis; for commonsense, science; for Truth, tentative hypothesis; for miracle, the ununderstood; for magician or shaman, physician; for immortality, fame; for inspiration or intuition, insight; for thing, gestalt or configuration; for prophecy, prediction; for tools, technology; for life, biochemic processes; for man, homo sap. The names get longer, but does wisdom increase?

This is a half-truth, or lesser fraction, but it is worth thinking about since the present terms perform functions similar to those once performed by the terms now displaced. Bloody wars and "revolutions in thought" have accompanied these verbal victories. Man is the Great Renamer but he seldom changes his names without much shedding of blood and tears and searching of soul; but change names he does, though after the smoke and noise have passed, it often appears that he merely has been chasing his communicational Devil around the woodpile or pursuing his linguistic tail in a vicious circle.

Doubtless he is getting somewhere; at least he is on his way and creates considerable transient sound and fury in his puny cosmic corner as he comes out for the Tenth and Final Round of this Champeen Biosocial Battle of the Ages and I want to tell you folks it has been a lulu from the First Gong the boys have been right in there punching every step of the way and *you* too can be in the pink and fight *your* battle better if you use Blah-Blah Blades so smooth so sharp so easy on the scrape and *you* will feel better faster if you remember to say Blah-Blah not just blades but Blah-Blah and now the Boys are Shaking Hands. . . .